

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934

Filed by the Registrant

Filed by a Party other than Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to §240.14a-11(c) or §240.14a-12

MATTSON TECHNOLOGY, INC.
(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
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1) Title of each class of securities to which transaction applies:

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3) Filing Party:

4) Date Filed:



**47131 Bayside Parkway
Fremont, California 94538**

**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD JUNE 4, 2007**

The Annual Meeting of Stockholders of Mattson Technology, Inc. (the "Company") will be held at the Company's headquarters, located at 47131 Bayside Parkway, Fremont, California 94538 on June 4, 2007, at 10:00 a.m. local time for the following purposes:

1. To elect two (2) Class I directors of the Company to hold office for a three-year term and until their successors are elected and qualified.
2. To approve an increase in the number of shares reserved for issuance under the Company's 2005 Equity Incentive Plan by 2,500,000 shares.
3. To ratify the appointment of PricewaterhouseCoopers LLP as the Company's independent registered public accountants for the year ending December 31, 2007.
4. To transact such other business as may properly come before the meeting or any adjournment or postponement of the meeting.

Only stockholders of record at the close of business on April 13, 2007 will be entitled to vote at the meeting. Each of these stockholders is cordially invited to be present and vote at the meeting in person. For ten days prior to the meeting, a complete list of stockholders of record entitled to vote at the meeting will be available for examination by any stockholder, for any purpose relating to the meeting, during ordinary business hours at the Company's headquarters.

By Order of the Board of Directors,

A handwritten signature in black ink, appearing to read "William Turner", is written over a horizontal line.

William Turner, Secretary

Fremont, California
April 26, 2007

You are cordially invited to attend the meeting. However, whether or not you plan to attend the meeting in person, please complete, date and sign the accompanying proxy and mail it promptly in the return envelope to assure that your shares are represented at the meeting. If you later desire to revoke your proxy, you may do so at any time before it is exercised.

MATTSON TECHNOLOGY, INC.
PROXY STATEMENT FOR
ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD JUNE 4, 2007

TABLE OF CONTENTS

	<u>Page</u>
General Information	3
Shares Outstanding and Voting Rights	3
Security Ownership of Management and Principal Stockholders	4
Executive Compensation and Other Matters	6
Compensation Discussion and Analysis	6
Overview of Executive Compensation Program	6
Corporate Governance	7
Elements of Compensation	7
Compensation of Chief Executive Officer	15
Post-Employment Compensation	16
Accounting and Tax Considerations	16
Executive Compensation	18
Summary Compensation Table for the Year Ended December 31, 2006	18
Plan-based Awards Granted During the Year Ended December 31, 2006	19
Equity Awards Outstanding at December 31, 2006	20
Equity Awards Exercised or Vested During the Year Ended December 31, 2006	22
Non-Qualified Deferred Compensation	23
Employment Contracts, Termination of Employment and Change in Control Arrangements	24
Pension Benefits	25
Code of Ethics	25
Section 16(a) Beneficial Ownership Reporting Compliance	25
Report of the Compensation Committee on Executive Compensation	26
Proposal One – Election of Directors	27
Vote Required and Recommendation of the Board of Directors	27
Board Meetings and Committees	28
Compensation of Directors	29
Policy and Procedure for Director Nomination	30
Stockholder Communications with the Directors	31
Director Attendance at Annual Stockholder Meeting	31
Certain Relationships and Related Transactions, and Director Independence	31
Compensation Committee Interlocks and Insider Participation	32
Proposal Two – Approval of Increase in Shares Reserved for Issuance Under the 2005 Equity Incentive Plan by 2,500,000 Shares	33
Vote Required and Recommendation of the Board of Directors	33
Summary of the 2005 Plan	33
Summary of United States Federal Income Tax Consequences	37
Options Granted to Certain Persons	38
Proposal Three – Ratification of Appointment of Independent Registered Public Accountants	39
Vote Required and Recommendation of the Board of Directors	39
Audit and Related Fees	39
Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accountants	40
Report of the Audit Committee	40
Stockholder Proposals to be Presented at Next Annual Meeting	42
Transaction of Other Business	42
Appendix One – Amendment #1 to Mattson Technology, Inc. 2005 Equity Incentive Plan	43

GENERAL INFORMATION

Your proxy in the enclosed form is solicited by the directors of Mattson Technology, Inc., a Delaware corporation (the "Company"), for use at the Annual Meeting of Stockholders to be held on June 4, 2007 at 10:00 a.m. local time (the "Meeting"), for the purposes set forth in the accompanying notice, and at any adjournment or postponement of the Meeting. The date of this Proxy Statement is April 26, 2007, the approximate date on which this Proxy Statement and accompanying form of proxy were first sent or given to stockholders.

The shares represented by any proxy in the enclosed form will be voted in accordance with the instructions given on the proxy if the proxy is properly executed and is received by the Company prior to the close of voting at the Meeting or any adjournment or postponement thereof. Proxies received by the Company on which no contrary instruction has been given will be voted in accordance with the recommendations of the Board of Directors for each nominee and for each proposal.

Copies of proxy solicitation material will be furnished to brokerage houses, fiduciaries, and custodians holding shares in their names which are beneficially owned by others to forward to such beneficial owners. The Company may reimburse such persons for their cost of forwarding the solicitation material to such beneficial owners. Original solicitation of proxies by mail may be supplemented, if deemed desirable or necessary, by one or more of telephone, telegram, facsimile, or personal solicitation by directors, officers, or employees of the Company. No additional compensation will be paid for any such services. We have engaged The Proxy Advisory Group, LLC, to assist in the solicitation of proxies and provide related advice and informational support, for a services fee and the reimbursement of customary disbursements that are not expected to exceed \$20,000 in the aggregate. Except as described above, the Company does not intend to solicit proxies other than by mail. The Company will bear the costs of the solicitation of proxies for the Meeting.

SHARES OUTSTANDING AND VOTING RIGHTS

Only holders of shares of common stock of record as of the close of business on April 13, 2007 are entitled to vote at the Meeting. On the record date, there were issued and outstanding 52,613,848 shares of common stock. Each share of common stock is entitled to one vote on all matters to be voted upon.

The presence, in person or by duly authorized proxy, of the holders of a majority of the voting shares of common stock will constitute a quorum for the transaction of business at the Meeting and any continuation or adjournment thereof. Votes for and against, abstentions and broker non-votes (i.e., shares held by brokers or nominees which are represented at the Meeting, but with respect to which such broker or nominee is not empowered to vote on a particular matter) will be counted as present in determining whether a quorum is present at the Meeting. Under rules governing brokers who are voting with respect to shares held in street name, brokers have the discretion to vote such shares on routine matters, but not on non-routine matters. Routine matters include the election of directors. Non-routine matters include amendments to equity compensation plans, including amendments to increase the share reserve under such plans.

Your execution of the enclosed proxy will not affect your right as a stockholder to attend the Meeting and to vote in person. Any stockholder giving a proxy has a right to revoke it at any time by either (i) a later-dated proxy, (ii) a written revocation sent to and received by the Secretary of the Company prior to the Meeting, or (iii) attendance at the Meeting and voting in person.

SECURITY OWNERSHIP OF MANAGEMENT AND PRINCIPAL STOCKHOLDERS

The following table sets forth information regarding ownership of the Company's outstanding common stock as of March 7, 2007 by (i) each stockholder known by the Company to be the beneficial owner of more than 5% of the Company's outstanding shares of common stock, (ii) each director, (iii) each executive officer named in the Summary Compensation Table below and (iv) all directors and executive officers as a group. To the Company's knowledge and except as otherwise indicated below, and subject to applicable community property laws, each person named in the table has sole voting and sole investment powers with respect to all shares of common stock shown as beneficially owned by them. Applicable percentage ownership in the table is based on 52,668,280 shares of common stock outstanding as of March 7, 2007. Beneficial ownership is determined under the rules and regulations of the Securities and Exchange Commission. Shares of common stock subject to options or warrants that are presently exercisable or exercisable within 60 days of March 7, 2007 are deemed outstanding for the purpose of computing the shares owned and percentage ownership of the person or entity holding options or warrants, but are not treated as outstanding for the purpose of computing the percentage ownership of any other person or entity. Entries denoted by an asterisk represent an amount less than 1%.

Name of Beneficial Owner	Amount and Nature of Beneficial Ownership	Percent of Common Stock Outstanding
NWQ Investment Management Company, LLC 2049 Century Park East, 4th Floor Los Angeles, CA 90067	9,073,202 (1)	17.2%
The TCW Group, Inc., on behalf of the TCW Business Unit 865 South Figueroa Street Los Angeles CA, 90017	5,757,347 (2)	10.9%
Rainier Investment Management, Inc. 601 Union Street, Suite 2801 Seattle, WA 98101	2,778,664 (3)	5.3%
Dr. Jochen Melchior	80,275 (4)	*
Dr. Hans-Georg Betz	40,889 (5)	*
Kenneth Kannappan	89,500 (6)	*
Shigeru Nakayama	82,354 (7)	*
Kenneth G. Smith	93,125 (8)	*
John C. Bolger	-	*
David L. Dutton	755,096 (9)	1.4%
Robert B. MacKnight	559,349 (10)	1.1%
William I. Turner	62,500 (11)	*
Ludger H. Viefhues	575,428 (12)	1.1%
Directors and executive officers as a group (10 persons)	2,338,516 (13)	4.4%

* Less than 1%.

- (1) According to Schedule 13G filed with the Securities and Exchange Commission on February 12, 2007 by NWQ Investment Management Company, LLC ("NWQ"), as of December 31, 2006 NWQ had sole voting power over 8,749,765 shares and sole dispositive power over 9,073,202 shares of the Company's common stock, which shares are owned by investment advisory clients of NWQ.

- (2) According to Schedule 13G filed with the Securities and Exchange Commission on February 12, 2007 by The TCW Group, Inc. on behalf of the TCW Business Unit (the "TCW Business Unit"), as of December 31, 2006 the TCW Business Unit had the shared power to vote of 3,184,477 shares and the shared power to dispose of 5,757,347 shares.
- (3) According to Schedule 13G filed with the Securities and Exchange Commission on February 14, 2006 by Rainier Investment Management, Inc ("Rainier"), as of December 31, 2006 Rainier had sole voting power over 2,682,116 shares and sole dispositive power over 2,778,664 shares of the Company's common stock, as a result of acting as investment advisor to various investment companies and as investment manager of institutional accounts.
- (4) Dr. Melchior: includes 80,000 shares subject to options exercisable within 60 days of March 7, 2007.
- (5) Dr. Betz: includes 40,000 shares subject to options exercisable within 60 days of March 7, 2007.
- (6) Mr. Kannappan: consists of 87,500 shares subject to options exercisable within 60 days of March 7, 2007.
- (7) Mr. Nakayama: consists of 82,354 shares subject to options exercisable within 60 days of March 7, 2007.
- (8) Mr. Smith: consists of 93,125 shares subject to options exercisable within 60 days of March 7, 2007.
- (9) Mr. Dutton: includes 738,184 shares subject to options exercisable within 60 days of March 7, 2007 and 8,750 restricted stock units that vest within 60 days of March 7, 2007.
- (10) Mr. MacKnight: includes 553,599 shares subject to options exercisable within 60 days of March 7, 2007 and 5,750 restricted stock units that vest within 60 days of March 7, 2007.
- (11) Mr. Turner: includes 62,500 shares subject to options exercisable within 60 days of March 7, 2007.
- (12) Mr. Viefhues: includes 550,197 shares subject to options exercisable within 60 days of March 7, 2007 and 17,000 restricted stock units that vest within 60 days of March 7, 2007.
- (13) Includes 2,287,459 shares subject to options exercisable within 60 days of March 7, 2007 and 31,500 restricted stock units that vest within 60 days of March 7, 2007.

EXECUTIVE COMPENSATION AND OTHER MATTERS

Compensation Discussion and Analysis

Overview of Executive Compensation Program

The Company's executive compensation program is designed to achieve three principal goals:

- to reward performance and link executive compensation to the creation of stockholder value through the use of performance- and equity-based compensation;
- to attract, retain and motivate highly qualified executives by compensating them at a level that is competitive with peer group companies; and
- to maximize long-term stockholder returns by utilizing compensation funds in an efficient and cost-effective manner.

The Company seeks to reward performance by requiring that performance goals be achieved before annual cash bonuses are paid to the Company's executive officers. For a discussion of the Company's bonus program, see "—Elements of Compensation—Bonuses," below. In addition to linking executive officers' bonuses to Company performance, the Company seeks to align the interests of stockholders and executive officers by making stock options and restricted stock units a significant component of its executive compensation packages. For a discussion of the Company's equity compensation program, see "—Elements of Compensation—Stock Options and Restricted Stock Units," below.

In order to maintain executive compensation at levels consistent with those of other companies in the Company's industry and of a size similar to that of the Company, the Compensation Committee of the Company's Board of Directors (the "Compensation Committee"), with the assistance of management, regularly compares the types and amounts of compensation paid to similar situated executive officers at these peer group companies. This benchmark analysis, together with Company and individual performance data, forms the basis for the Compensation Committee's decisions regarding cash and equity-based compensation. The Compensation Committee considers the results of this benchmark analysis valuable for several purposes, including helping the Company to compete successfully for management talent and holding compensation costs at a reasonable level. For a discussion of the Company's benchmark analysis, see "—Elements of Compensation—Base Salary," below.

Accounting, tax and other regulatory developments can have an important effect on the Company's compensation costs and, consequently, on the forms of compensation utilized by the Compensation Committee. The Compensation Committee, with the assistance of management and the Company's outside legal and accounting advisors, monitors such developments and adjusts the Company's compensation practices accordingly. For a discussion of certain accounting and tax considerations that are significant to the Company's compensation policies, see "—Accounting and Tax Considerations," below.

Corporate Governance

Role of Compensation Committee

The Compensation Committee oversees and administers the Company's executive compensation program in accordance with the Compensation Committee Charter, which is accessible via the "Corporate Governance" link at www.mattson.com. At least annually, and usually in December of each year, the Compensation Committee meets to assess the Company's and executive officers' performance against the goals set for the year then ending and to establish a compensation plan for the following year. In creating such compensation plan, the Compensation Committee reviews all components of executive officer compensation for consistency with the Company's compensation philosophy and considers developments in compensation practices outside of the Company.

In addition, the Compensation Committee oversees and administers the Company's compensation program for non-executive employees. The Compensation Committee has delegated to a committee comprised of the Company's Chief Executive Officer, Chief Financial Officer and Senior Vice President of Organization Capability the authority to grant awards under the 2005 Equity Compensation Plan to certain employees below the executive officer level, subject to specified limitations, including the number of shares of common stock and the exercise price associated with such awards. These grant amounts must be within the guidelines previously approved by the Compensation Committee, the exercise price of such grants must be fair market value on the date of grant, and all grants in excess of 25,000 shares must receive Compensation Committee approval.

The Compensation Committee has the authority to engage independent advisors, such as compensation consultants, to assist it in carrying out its responsibilities. The Compensation Committee does not at present engage any outside consultant on a regular basis, but is in the process of engaging one for future compensation matters.

Role of Management

At least annually, and usually in December of each year followed by a meeting in January, the Compensation Committee meets with Mr. Dutton, the Company's Chief Executive Officer, and members of the Company's human resources department to obtain recommendations with respect to Company compensation practices and review the information used to support these recommendations. Management makes recommendations to the Compensation Committee on the base salary; bonus awards and targets, performance goals and equity compensation for the executive officers and certain other Company employees. The Compensation Committee considers management's recommendations in determining the compensation plan that it ultimately approves. Management also presents the Compensation Committee with information on the performance of the Company and the executive officers, and this information is used by the Compensation Committee to determine the cash bonuses for the year then ending. The Compensation Committee discusses the executive officers' compensation with Mr. Dutton, but makes decisions with respect to Mr. Dutton's compensation without Mr. Dutton present.

Elements of Compensation

In structuring the Company's compensation program, the Compensation Committee seeks to select the types and levels of compensation that will further its goals of rewarding performance, linking executive compensation to the creation of stockholder value, attracting and retaining highly qualified employees and maximizing long-term stockholders returns. Consistent with these goals, the Company's compensation program includes a mix of salary, cash bonus, stock options and restricted stock units. Based on its review of compensation practices of its peer group companies, the Compensation Committee believes that offering a mix of compensation types is necessary if it is to compete successfully for management talent and achieve these goals. In particular, performance- and equity-based compensation is used to link executive incentives and the creation of stockholder value.

Base Salary

The Compensation Committee sets executive salaries on an annual basis, usually in December of each year for the following year, after considering the recommendations of management. In setting base salary levels, the Compensation Committee considers a variety of factors, both quantitative and qualitative, with the ultimate goal of rewarding positive performance and remaining competitive in attracting and retaining executive talent.

One of the Compensation Committee's primary considerations when setting executive officers' base salaries is how those salaries compare to the base salaries of executive officers within the Company's peers and competitors. The Compensation Committee reviews comparative or "benchmark" data provided by management when setting base salary levels. However, this and other data only helps to inform the Compensation Committee's determination of base salaries, and the Compensation Committee retains the discretion to consider individual and corporate performance, prior experience, length of employment, existing and historic salary levels, internal consistency among employee pay levels, external pressures to attract and retain talent, and market conditions generally.

The base salaries of the Company's executive officers are benchmarked against two peer groups. The first peer group consists of approximately 160 companies with revenues similar to those of the Company (between \$200 million and \$500 million per year) drawn from a variety of industries. The Company obtains this information from Radford High Technology Surveys and Consulting.

After this peer group comparison has been performed, the Company checks the results for general consistency against compensation practices of a second peer group that consists of capital equipment companies with revenues ranging from \$150 million to \$460 million with average revenue of \$325 million. This peer group is comprised of the following companies:

Advanced Energy Industries, Inc.	FEI Company
Asyst Technologies, Inc.	Formfactor, Inc
Axcelis Technologies, Inc.	Kulicke & Soffa Industries, Inc.
Brooks Automation, Inc.	LTX Corporation
COHU, Inc	Newport Corporation
Credence Systems Corp.	Ultra Clean Holdings, Inc.
Cymer, Inc.	Veeco Instruments, Inc.
Electro Scientific Industries, Inc.	

The Company targets base pay at the 60th percentile among the Radford High Technology benchmark peer group companies in the same or similar revenue groups. The Company believes that positioning base pay at the 60th percentile of peer companies strikes the proper balance between attracting and retaining outstanding management talent and controlling compensation costs.

The annual base salaries of the executive officers paid in 2005 and 2006, and the base salaries of the executive officers set for 2007 (as determined by the Compensation Committee in December 2006), are set out in the table below:

<u>Name and Title</u>	<u>2007¹</u>	<u>2006</u>	<u>2005</u>
David L. Dutton <i>Chief Executive Officer and Director</i>	\$450,000	\$450,000	\$443,077
Robert B. MacKnight <i>Chief Operating Officer and President</i>	\$378,538	\$378,538	\$337,119
Ludger H. Viefhues <i>Chief Financial Officer through December 2006 and Executive Vice President, Finance</i>	\$320,000 ²	\$320,000	\$308,923
William I. Turner <i>Chief Financial Officer since January 2007 and Executive Vice-President, Finance</i>	\$320,000	\$110,769	N/A

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- (1) Base salary figures for 2007 represent the base salaries determined by the Compensation Committee in December 2006, and may be changed by subsequent action by the Compensation Committee or Board of Directors.
 - (2) In connection with Mr. Viefhues' planned retirement, effective January 1, 2007, Mr. Viefhues relinquished his role as the Company's Chief Financial Officer and assumed an interim role as Executive Vice President, Finance. Mr. Viefhues is expected to serve in this capacity, and to receive his base salary, through his retirement in June 2007. Consequently, Mr. Viefhues is expected to receive base salary of approximately \$160,000 for 2007.

For 2006, after taking into consideration the compensation targets and management's recommendations, the Compensation Committee decided to maintain the base salaries of the executive officers near 2005 levels. The 2006 base salary levels increased by 1.6%, 12.3% and 3.6% for each of Mr. Dutton, Mr. MacKnight and Mr. Viefhues, respectively, as compared to 2005 base salary levels. The increase in base salary between 2005 and 2006 is in part the result of the executive officers returning to full base salary compensation levels after each took a voluntary salary reduction in 2005 as part of a general initiative at the Company to control operating costs. In the case of Mr. MacKnight, the increase in base salary is also the result of Mr. MacKnight assuming the position of the Company's President while retaining the Chief Operating Officer's responsibilities. The President/COO role now includes the global business operations of sales and service. The Compensation Committee decided to leave base salary levels substantially unchanged in 2006 because it believed that existing salary levels were adequate in light of market data. For the same reason, the Compensation Committee has not increased executive officer salaries for 2007. For additional information on Mr. Dutton's base salary, see "—Compensation of Chief Executive Officer," below.

In August 2006, the Company hired Mr. Turner as Executive Vice President, Finance. In January 2007, Mr. Turner assumed the role of Chief Financial Officer. Mr. Turner's salary on joining the Company was determined based upon benchmark data and other of the considerations discussed above. The 2006 salary information presented for Mr. Turner in the table above reflects the amount paid to Mr. Turner for the portion of the year that the Company employed him. Mr. Turner's \$320,000 salary for 2007 represents no increase from his annualized salary for 2006.

Bonuses

Annual Cash Bonus

The Company's executive officers are eligible to receive cash bonuses based upon the Company's achievement of performance goals set by the Compensation Committee. The Compensation Committee believes that the practice of awarding cash bonuses based on the achievement of performance goals furthers the Company's goal of strengthening the connection between the interests of management and the Company's stockholders. Performance-based awards are also an important tool for motivating management to achieve the financial and operating results considered by the Compensation Committee to be most significant to the Company's long-term health and profitability.

On an annual basis, usually in December of each year, the Compensation Committee meets to compare the performance of the Company against these goals and determine the executive officers' cash bonus payouts. The Compensation Committee normally determines the performance goals for the following year at the same meeting. In setting performance goals, the Compensation Committee seeks to set goals that are very challenging but achievable, and may reconsider those goals if market conditions change significantly. Historically, the Company has paid cash bonuses on a biannual basis. In 2006, however, the Compensation Committee decided to pay bonuses to executive officers on an annual basis so that the resulting bonus payouts are based on a full year's financial results.

The Company's cash bonus policy is designed so that these target bonuses, when combined with the other elements of the executive officers' compensation packages, create total compensation that is competitive with other companies against which the Company competes in hiring and retaining key employees. Consequently, management compiles and provides the Compensation Committee with benchmark data relating to bonus levels. The peer group companies used to generate this data are the same as those listed under "—Base Salary," above. The Company aims for the total value of target cash bonus awards to be at the 60th percentile among its peer group companies.

Target and maximum bonuses are defined by reference to each executive officer's base salary. With respect to 2006 and 2007, the target and maximum bonus levels as a percentage of the respective base salaries of each of the executive officers are as set out in the table below. Actual bonuses paid in 2007, if any, will depend on actual performance during 2007 versus the performance goals for 2007.

<u>Name and Title</u>	<u>Target Bonus Level</u>		<u>Maximum Bonus Level</u>	
	<u>2007¹</u>	<u>2006</u>	<u>2007</u>	<u>2006</u>
David L. Dutton <i>Chief Executive Officer and Director</i>	100%	100%	200%	200%
Robert B. MacKnight <i>Chief Operating Officer and President</i>	75%	75%	150%	150%
Ludger H. Viefhues <i>Chief Financial Officer through December 2006 and Executive Vice President, Finance</i>	60% ²	50%	120% ²	100%
William I. Turner <i>Chief Financial Officer since January 2007 and Executive Vice-President, Finance</i>	60%	50%	120%	100%

-
- (1) Target bonus levels for 2007 represent the bonus levels determined by the Compensation Committee in December 2006, and may be changed by subsequent action by the Compensation Committee or Board of Directors.

(2) In connection with Mr. Viefhues' planned retirement, effective January 1, 2007, Mr. Viefhues relinquished his role as the Company's Chief Financial Officer and assumed an interim role as Executive Vice President, Finance. Mr. Viefhues is expected to serve in this capacity through his retirement in June 2007.

In August 2006, Mr. Turner joined the Company as Executive Vice-President, Finance. Mr. Turner's cash bonus for 2006 was pro rated for the percentage of the year that he was employed by the Company. Based on management's benchmark analysis, the Compensation Committee subsequently determined that it was appropriate to increase Mr. Turner's target bonus level from 50% of base salary in 2006 to 60% of base salary in 2007, and his maximum bonus from 100% of base salary in 2006 to 120% of base salary in 2007.

The percentage of target bonus that an executive actually receives is determined by the Company's performance vis-à-vis performance measures established by the Compensation Committee.

In 2006, a bonus pool for all employees was funded using 33% of net income (excluding royalties) that the Company generated in excess of a target level of net income set by the Compensation Committee at the end of 2005. After adjusting the executive officers' target bonus levels based on the size of the bonus pool, the Compensation Committee considered a second set of performance goals to determine the percentage of his target bonus that each executive officer would receive. For 2006, the Compensation Committee established the following performance measures:

- *Days Sales Outstanding*—Days sales outstanding (“DSO”) is defined as current accounts receivable divided by sales per day for the relevant period. The Compensation Committee believes DSO to be a good measure of the Company's ability to generate cash flow from sales on a timely basis.
- *Inventory Turns*—Inventory turns are defined as cost of goods sold (on an annualized basis) divided by the value of the Company's inventory. The Compensation Committee believes inventory turns to be a good measure of the Company's ability to recover the value of its investment in inventory on a timely basis.

For 2006, the Company exceeded its goal for DSO but fell short of its goal for inventory turns. In addition, while the Company's net income increased, the Compensation Committee believed that the gross margin should have been higher. Consequently, the Compensation Committee reduced the bonuses that would otherwise have been payable to the executive officers. Based on the foregoing considerations, the Compensation Committee approved the following 2006 bonuses to the executive officers:

<u>Name and Title</u>	<u>Amount</u>	<u>Percentage of Base Salary</u>
David L. Dutton <i>Chief Executive Officer and Director</i>	\$138,116	30.7%
Robert B. MacKnight <i>Chief Operating Officer and President</i>	\$87,005	23.0%
Ludger H. Viefhues <i>Chief Financial Officer through December 2006 and Executive Vice President, Finance</i>	\$49,108	15.3%
William I. Turner <i>Chief Financial Officer since January 2007 and Executive Vice-President, Finance</i>	\$10,293	9.3%

Executive officer bonuses for 2006 represent an increase versus 2005, for which no bonuses were paid to the executive officers because the Company did not achieve the 2005 net income goal that the Compensation Committee had established for that year.

In December 2006, the Compensation Committee decided to change the performance measures used to determine the level of cash bonuses for executive officers for the upcoming year. As in 2006, these performance measures are applied only after adjusting the executive officers' target bonus levels for the size of the bonus pool. In 2007, each performance goal will be weighted based upon the Compensation Committee's view of its significance to the Company's overall objective of successfully implementing its business plan and achieving its financial objectives. Consequently, the compensation plan that will be used to determine the executive officers' 2007 cash bonuses will be funded by the Company's operating profit. If the Company achieves 67% of its goal for operating profit percent (the plan threshold), then the executive officers can receive up to 25% of their target bonus. When the company achieves its goal for operating profit percent the plan is funded at 100% of the executive's target award. The following performance measures will be used in determining the specific award for each executive:

- *Operating Profit Percentage*—Operating profit percentage is defined as income from operations, excluding certain royalty payments received by the Company and certain adjustments made pursuant to FAS 123, divided by net sales. The Compensation Committee believes this to be a good measure of the Company's progress towards achieving its goal of maximizing corporate profitability. In 2007, 50% of the executive officers' cash bonuses will be based upon the Company's performance versus its operating profit goal.
- *Gross Profit Margin* – Gross profit margin is defined as net sales (excluding royalties) less corresponding cost of sales as a percentage of net sales (excluding royalties). In 2007, 50% of the executive officers' cash bonuses will be based upon the Company's performance versus its gross profit margin goal.

The Compensation Committee retains the discretion to increase or decrease cash bonuses above or below the amounts determined by applying the formula described above, including above the maximum predetermined bonus level, with respect to all or some of the Company's eligible employees. Such increases or decreases are considered when the Compensation Committee believes they may aid the Company in meeting its overall compensation goals or when extraordinary circumstances otherwise warrant.

QPR Plan

In addition to the cash bonuses discussed under “—Annual Cash Bonus,” all Company employees, including its executive officers, are eligible for a quarterly cash bonus under the Company's Quarterly Profit Reward Plan (the “QPR Plan”). QPR Plan awards are based upon the Company's targeted operating margin (defined as operating income as a percentage of revenue) in the relevant quarter. During 2006, no payments were to be made under the QPR Plan until the Company achieved a threshold-operating margin of 5%, with payments increasing as operating margin increased above 5%, up to a maximum of \$500 per quarter per employee. Under the QPR Plan, each eligible employee receives the same bonus amount.

In 2006, Mr. Dutton, Mr. MacKnight and Mr. Viefhues each received \$1,823 under the QPR Plan, and Mr. Turner received \$500 under the QPR Plan.

The Compensation Committee has amended the terms of the QPR Plan to revise the operating margin schedule and eliminate the maximum amount payable under the QPR Plan. As amended, no payments will be made under the QPR Plan until the Company achieves an operating margin of 5%, with payments increasing as operating margin increases above 5%. At 6%, 10%, 15% and 20% operating margins, the per employee payouts are estimated to be \$94, \$470, \$940 and \$1,411, respectively. In 2007, quarterly awards under the QPR Plan will not be subject to a maximum amount in order to give eligible employees the potential to more fully participate in positive financial results of the Company.

Other Bonuses

In August 2006, the Company paid Mr. Turner a cash sign-on bonus of \$60,556, as well as the equity grant discussed below. Mr. Turner's bonus level was determined based upon Radford executive data and a comparison of sign-on bonuses paid to executive officers among the Company's peer group companies.

Stock Options and Restricted Stock Units

The Company provides long-term incentive compensation to its executive officers through awards of stock options and restricted stock units under its 2005 Equity Incentive Plan. The purpose of providing this equity-based compensation is to give participants a direct financial interest in the long-term performance of the Company, which helps to align the interests of participants with those of the Company's stockholders.

Prior to the adoption of the 2005 Equity Incentive Plan, the Company provided equity-based compensation to its executive officers exclusively in the form of stock options. Under the 2005 Equity Incentive Plan, the Company may grant equity awards in the form of stock options, restricted stock or restricted stock units ("RSUs"). RSUs are obligations of the Company to issue common stock to the grantee on future vesting dates. Since the adoption of the 2005 Equity Incentive Plan, the Compensation Committee has granted the executive officers both stock options and RSUs. The Company began to grant a portion of its equity compensation in the form of RSUs because RSUs, when used in conjunction with stock options, possess a number of advantages as compared to stock options, including:

- *More predictable value to employees*—RSUs provide a more predictable value to employees than do stock options, and therefore are efficient tools in retaining and motivating employees, while also serving as an incentive to increase the value of the Company's common stock.
- *More efficient use of share reserves*—RSUs are more efficient with respect to the use of the Company's share reserves. Because each RSU has a higher value than a stock option, fewer shares of common stock are needed to provide a retention and incentive value similar to stock options.
- *Tax and accounting considerations*—The Company and its executive officers also realize certain accounting and tax advantages from the use of RSUs. These tax and accounting considerations are discussed under "—Accounting and Tax Considerations," below.

The Company makes grants of stock options and RSUs to eligible employees, including its executive officers, upon commencement of employment and on an annual basis. It also makes periodic grants in connection with employee promotions and awards. Annual equity compensation awards to executive officers are determined by the Compensation Committee at its December meeting or shortly thereafter. In the past, the grant date for such awards was at the culmination of the Company's internal process for determining awards to all its eligible employees, which typically occurred in early March. Beginning in 2007 and going forward, the grant date of all annual grants will be the opening date of the Company's first quarter stock trading window. Grant dates for new hire grants are the date the employee begins work, and grant dates for promotional or award grants are the opening date of the Company's stock trading window immediately following such promotion or award notification.

All stock options are granted with an exercise price equal to their fair market value on the date of grant, which is equal to the closing sale price of the Company's common stock as quoted on the NASDAQ Global Select Market on the date of grant. Except as set out below, all options vest over a period of four years at a rate of 25% after one year and 1/48th of the initial amount granted each month thereafter, conditioned upon continued employment with the Company through each vesting date. Except as set out below, all RSUs vest over a period of four years at a rate of 25% after one year and 1/16th of the initial amount granted each quarter thereafter, conditioned upon continued employment with the Company through each vesting date.

During 2006, certain of the executive officers received equity-based compensation in addition to the annual grants to executive officers discussed above. In June 2006, Mr. Turner, who was then serving as a director of the Company, received an option grant to purchase 17,000 shares of common stock in accordance with the Company's director compensation plan. Although Mr. Turner resigned as a director upon joining the Company on August 28, 2006, he continues to hold and vest in these options as an employee of the Company. Upon joining the Company as an employee, Mr. Turner received a new hire grant of options to purchase 120,000 shares of common stock, which the Compensation Committee considered to be consistent with the Radford data and practices at its peer group companies.

Taking into account Mr. Viefhues' planned retirement in June 2007, the Compensation Committee determined that Mr. Viefhues' 2006 annual grant should fully vest close to the date of his retirement. Consequently, in April 2006 Mr. Viefhues received a grant of stock options to purchase 48,750 shares of common stock that vest over a twelve-month period and in May 2006 he received 17,000 RSUs that vest over a twelve-month period.

For information on the stock options and RSUs granted to the executive officers during 2006, see "Executive Compensation—Equity Awards Granted During the Year Ended December 31, 2006," below. For information on the stock options granted to the executive officers during 2005, see "Executive Compensation and Other Matters—Stock Options Granted During 2005" in the Company's Proxy Statement on Schedule 14A filed with the Securities and Exchange Commission on May 23, 2006.

When determining the number and terms of stock options and RSUs to be granted to an individual, the Compensation Committee considers individual performance, overall contribution to the Company, retention, the number of equity-based securities held, Radford data and grant data from peer group companies. The Company compares the total value (based on the fair market value of the award as of the determination date) of its stock option and RSU grants against market data collected regarding the equity grant practices for the peer group companies listed above under "—Base Salary." The Company targets the total value of equity-based awards at the 60th percentile among its peer group companies and the relevant Radford executive group.

The Company is asking stockholders to approve an increase in the number of shares reserved for issuance under the 2005 Equity Incentive Plan by 2.5 million shares. See "Proposal Two—Approval of Increase in Shares Reserved for Issuance under the 2005 Equity Incentive Plan by 2,500,000 Shares," below. The Company believes that stockholder approval of the increase in the number of shares reserved for issuance under the 2005 Equity Incentive Plan is important to allow the Company to grant the equity awards necessary to continue to attract and retain key talent and to motivate executives and other employees to achieve the Company's goals.

Deferred Compensation Plan

In December 2005, the Compensation Committee adopted a non-qualified deferred compensation plan (the "NQDC Plan"), which allows eligible employees, including executive officers, and members of the Board of Directors to voluntarily defer receipt of the portion of their base salaries, cash bonuses or directorship fees, as the case may be, thereby allowing the participating employee or director to defer taxation on such amounts. The NQDC Plan is offered to eligible employees in order to allow them to defer more compensation than they would otherwise be permitted to defer under a tax-qualified retirement plan, such as the Company's 401(k) Plan, discussed below. In addition, the Company, acting through the Board of Directors, may make discretionary contributions to the accounts of one or more NQDC Plan participants. The Compensation Committee determined the terms of the NQDC Plan after consulting with Pen-Cal Administrators, a compensation consulting agency.

Under the NQDC Plan, the Company is obligated to deliver on a future date the deferred compensation credited to the relevant participant's account, adjusted for any positive or negative investment results from investment alternatives selected by the participant under the Plan (the "Obligations"). The Obligations are unsecured general obligations of the Company and rank in parity with other unsecured and unsubordinated indebtedness of the Company. The Obligations are not transferable, except upon death of a participant. There is no trading market for the Obligations.

In 2006, there were no discretionary contributions made by the Board of Directors to NQDC Plan accounts. All earnings under the NQDC Plan were based on the market performance of the investments selected at the direction of the individual participant.

The Company believes that the NQDC Plan is an important component of the total compensation package that it uses to attract and retain management talent. The NQDC Plan is evaluated for competitiveness in the marketplace from time to time.

Perquisites and Other Compensation

The Company offers a number of other benefits to its executive officers pursuant to benefit programs that provide for broad-based employee participation, including the employee stock purchase plan (“ESPP”), 401(k) Plan and other generally available benefit programs. The Company believes that these benefits are necessary for the Company to compete effectively for employee talent and that the availability of these benefits programs enhances employee health and productivity and loyalty to the Company. These generally available benefits do not directly factor into decisions regarding executive officers’ total compensation packages.

Employee Stock Purchase Plan

The ESPP permits Company employees, including the executive officers, to have their regular earnings withheld over a six-month period to purchase shares of the Company’s common stock on a discounted basis. The price paid for common stock purchased through the ESPP is equal to 90% of the closing price per share of the Company’s common stock on the NASDAQ Global Select Market on the date preceding the purchase date. Several of the executive officers have from time to time participated in the ESPP.

401(k) Plan

The Company maintains a tax-qualified 401(k) Plan, which provides for broad-based employee participation. Under the 401(k) Plan, all employees are eligible to receive matching contributions from the Company. The matching contribution for the 401(k) Plan for 2006 was \$1,300 for Mr. Dutton, \$6,585 for Mr. MacKnight, \$6,575 for Mr. Viefhues and \$2,585 for Mr. Turner. The Company contributes an amount equal to each participating employee’s contribution to his or her 401(k) account, up to a maximum of three percent of such employee’s base salary.

Other Compensation

The Company offers a number of other benefits to its executive officers pursuant to benefit programs that provide for broad-based employee participation, including medical, dental and vision insurance, long-term and short-term disability insurance, life and accidental death and dismemberment insurance, health and dependent care flexible spending accounts, business travel insurance, relocation/expatriate programs and services, educational assistance, employee assistance and certain other benefits.

The Company also may grant additional benefits to executive officers at the time that they commence employment with the Company. In connection with the commencement of his employment in August 2006, the Company agreed to reimburse Mr. Turner for relocation-related expenses of up to \$50,000, and subsequently paid Mr. Turner such \$50,000. The Company has also agreed to reimburse Mr. Turner for certain personal travel expenses associated with his relocation to California during 2007.

Compensation of Chief Executive Officer

The Compensation Committee reviews Mr. Dutton’s total compensation package on an annual basis in December. When conducting this review, the Compensation Committee considers Mr. Dutton’s contributions to the Company’s performance and peer group and Radford benchmark data provided by management. Some of the factors of Company performance considered by the Compensation committee include the following:

- *Strong top-line performance*—In 2006, the Company achieved record revenues, which increased by 34.6% to \$281.8 million from \$209.4 million in 2005;
- *Strong bottom-line performance*—In 2006, operating expenses declined as a percentage of revenue by 4.9% due to increased sales and continued efforts to control operating costs; and
- *Strong operational performance*— Income before taxes was \$21.2 million, or 7.5% of net sales in 2006, compared to \$7.5 million, or 3.6% of sales in 2005.

- *New Products*—A number of new products were brought to market under Mr. Dutton’s leadership, most notably the Company’s Suprema product, which has achieved the fastest major product ramp in the Company’s history. In 2006, the Company shipped more than 2.5 times as many Suprema systems as originally planned.

In 2006, the Compensation Committee awarded Mr. Dutton a cash bonus equal to 30.7% of his base salary, or \$138,116. As discussed above, Mr. Dutton’s target bonus for 2006 was 100% of his base salary, or \$450,000, but he received only 30.7% of his base salary, or \$138,116, because of the Company’s performance on net income, days sales outstanding and inventory turns, and because the Compensation Committee reduced the amount that would otherwise have been payable because of the Company’s performance on gross margin. The Compensation Committee considered it appropriate to pay Mr. Dutton, as well as the other executive officers, bonuses below their target levels due to the low level of growth in the Company’s operating margin during 2006. See “—Elements of Compensation—Bonuses—Annual Cash Bonus,” above. However, the Compensation Committee considered it appropriate to pay Mr. Dutton and the other executive officers cash bonuses, albeit below their 2006 target levels, based on the Company’s achievement of other significant operating and financial goals. These achievements included:

In 2005, no bonus was awarded to Mr. Dutton because the Company failed to meet its predetermined goal for net income for 2005.

In 2006, Mr. Dutton received stock option grants to purchase a total of 81,250 shares of common stock and RSUs representing 35,000 shares of common stock. The aggregate grant date fair market value of these equity-based awards was approximately \$1.1 million. In 2005, Mr. Dutton received stock option grants to purchase a total of 100,000 shares of common stock. The aggregate grant date fair market value of these stock options was approximately \$925,000. As with the Company’s other executive officers, in each year the Compensation Committee determined Mr. Dutton’s equity compensation based on his performance (including the achievements noted in the above paragraph relating to bonus), market practices for similar companies, and his existing equity holdings.

Post-Employment Compensation

The Company recognizes that it is possible that it could undergo a change of control, and that this possibility could result in the departure or distraction of the executive officers to the detriment of the Company and its stockholders. Consequently, the Company has entered into agreements with its executive officers that provide them with certain benefits upon the termination of their employment following a change of control of the Company. These benefits include the continuation of salary and insurance coverage and the accelerated vesting of stock options. The Company believes that these agreements will help to maintain the continued focus and dedication of the executive officers to their assigned duties without the distraction that could result from the possibility of a change-of-control.

For additional information on these change-of-control agreements, see “—Executive Compensation—Employment Contracts, Termination of Employment and Change in Control Agreements,” below.

Accounting and Tax Considerations

Deductibility of Executive Compensation

Section 162(m) of the Internal Revenue Code (the “Code”) imposes limitations on the deductibility for federal income tax purposes of compensation over \$1 million paid to certain executive officers in a taxable year. Compensation above \$1 million may only be deducted if it is “performance-based compensation” within the meaning of the Code. Income from options granted under the Company’s stock option plan would generally qualify for a deduction under these restrictions so long as the options are granted by a committee whose members are non-employee directors. Income from restricted stock units with time-based vesting will not qualify for a deduction under these restrictions. The Compensation Committee believes that at the present time it is unlikely that the salary and bonus compensation paid to any executive officer in a taxable year that is subject to the deduction limit will

exceed \$1 million. However, it is possible that the vesting of restricted stock units in the future could cause a payment that is subject to the deduction limit. In addition, based on the terms of the 2005 Equity Incentive Plan, no employee may receive in any fiscal year options to purchase in excess of 500,000 shares. The Compensation Committee has established a policy for determining the forms of incentive compensation awarded to its executive officers that qualify as “performance-based compensation,” namely achievement of corporate goals and individual objectives. The Compensation Committee intends to continue to evaluate the effects of the Code and any Treasury regulations and the advisability of qualifying its executive compensation for deductibility of such compensation. The Compensation Committee’s policy is to qualify its executive compensation for deductibility under applicable tax laws to the extent practicable.

Taxation of “Parachute” Payments and Deferred Compensation

Section 280G and related Code sections provide that executive officers, directors who hold significant stockholder interests and certain other service providers could be subject to significant additional taxes if they receive payments or benefits in connection with a change in control of the Company that exceeds certain limits, and that the Company or its successor could lose a deduction on the amounts subject to the additional tax. The Company has not provided any executive officer with a gross-up or other reimbursement for tax amounts the executive might pay pursuant to Section 280G.

Section 409A of the Code also imposes additional significant taxes in the event that an executive officer, director or service provider receives “deferred compensation” that does not meet the requirements of Section 409A. To assist in the avoidance of additional tax under Section 409A, the Company structured its NQDC Plan and structures its equity awards in a manner intended to comply with the applicable Section 409A requirements.

Accounting for Stock-Based Compensation

The Company has expensed stock option grants under FASB Statement No. 123(R), *Share-Based Payment*, (“FAS No. 123(R)”) beginning in 2006. FAS No. 123(R) requires companies to include the fair value of equity compensation as a compensation expense in their income statements. In 2005, the Company adopted the 2005 Equity Incentive Plan, in part to give it the flexibility to grant such other forms of equity-based compensation to enable it to control compensation expense, as necessary.

Executive Compensation

Summary Compensation Table for the Year Ended December 31, 2006

The following table presents information for the year ended December 31, 2006 regarding the compensation paid to the Company's Chief Executive Officer and each of the Company's other executive officers.

Name and Title	Year	Salary	Bonus (1)	Stock Awards (2)	Option Awards (3)	Non-Equity Incentive Plan Comp- ensation (4)	Change in	All Other Comp- ensation (6)	Total
							Pension Value and Nonqualified Deferred Compensation Earnings (5)		
David L. Dutton <i>Chief Executive Officer and Director</i>	2006	\$ 450,000	—	\$ 66,344	\$ 152,294	\$ 139,939	—	\$ 4,357	\$ 812,934
Robert B. MacKnight <i>Chief Operating Officer and President</i>	2006	\$ 378,538	—	\$ 43,598	\$ 161,093	\$ 88,828	—	\$ 12,748	\$ 684,805
Ludger H. Viefhues <i>Chief Financial Officer through December 2006 and Executive Vice-President, Finance</i>	2006	\$ 320,000	—	\$ 128,986	\$ 318,913	\$ 50,931	—	\$ 11,248	\$ 830,078
William I. Turner <i>Chief Financial Officer since January 2007 and Executive Vice-President, Finance</i>	2006	\$ 110,769	\$ 60,556	—	\$ 55,553	\$ 10,793	—	\$ 53,086	\$ 290,757

- (1) The bonus paid to Mr. Turner was a sign-on bonus paid upon his joining the Company on August 28, 2006.
- (2) The compensation cost for stock awards is related to grants of restricted stock units. Compensation cost is measured based on the intrinsic value of the shares at each measurement date. For more information regarding the methods used in determining compensation expense under SFAS No. 123(R), refer to the notes to the Company's consolidated financial statements included in the Company's 2006 Annual Report on Form 10-K for the year ended December 31, 2006 (the "2006 Annual Report on Form 10-K").
- (3) Compensation cost for stock options is calculated in accordance with SFAS No. 123(R). The Company uses the Black-Scholes model to calculate stock option-based compensation expense. For more information regarding the assumptions used in determining compensation expense under SFAS No. 123(R), refer to the notes to the Company's consolidated financial statements included in the Company's 2006 Annual Report on Form 10-K.
- (4) Non-Equity Compensation includes two bonus plans for 2006. The Company has a quarterly profit reward plan available to all employees, based on achievement of certain operating income targets, of up to \$500 per quarter per employee. In 2006, Messrs. Dutton, MacKnight and Viefhues each received \$1,823 under this plan and Mr. Turner received \$500 under this plan. The Company also has a bonus plan for executive officers, senior management and certain other employees. For 2006, the plan set targeted levels of net income, days sales outstanding and inventory turns, and bonus amounts were determined based on achievement against the targets. For 2006, Mr. Dutton, received \$138,116 under this plan, Mr. MacKnight received \$87,005 under this plan, Mr. Viefhues received \$49,108 under this plan and Mr. Turner received \$10,293 under this plan.
- (5) For 2006, deferred compensation earnings of \$3,357 for Mr. MacKnight and \$3,125 for Mr. Viefhues have been excluded from the table above as such earnings were solely based on investment performance and did not represent preferential or above market earnings.
- (6) All other compensation includes Company matching funds for 401(k) plans, the intrinsic value realized by participation in the Company's ESPP plan and the value of excess group life policies. For Mr. Turner, the amount also includes a \$50,000 relocation allowance per his employment agreement.

Plan-based Awards Granted During the Year Ended December 31, 2006

The following table provides the specified information concerning plan-based awards made during the year ended December 31, 2006 to the persons named in the Summary Compensation Table.

Name and Title	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards			Estimated Future Payouts Under Equity Incentive Plan Awards			All Other Stock Awards: Number of Shares of Stock or Units	All Other Option Awards: Number of Securities Underlying Options	Exercise or Base Price of Option Per Share	Grant Date Fair Value of Stock and Option Awards (2)
		Thresh-hold	Target	Max-imum	Thresh-hold	Target	Max-imum				
David L. Dutton	04/04/06	—	—	—	—	—	—	—	81,250	\$ 11.92	\$ 685,888
<i>Chief Executive Officer and Director</i>	05/01/06	—	—	—	—	—	—	35,000	—	\$ 11.35	\$ 397,250
	01/01/06	—	\$ 2,000	\$ 2,000	—	—	—	—	—	—	—
	01/01/06	—	\$ 450,000	\$ 900,000	—	—	—	—	—	—	—
Robert B. MacKnight	04/04/06	—	—	—	—	—	—	—	65,000	\$ 11.92	\$ 548,711
<i>Chief Operating Officer and President</i>	05/01/06	—	—	—	—	—	—	23,000	—	\$ 11.35	\$ 261,050
	01/01/06	—	\$ 2,000	\$ 2,000	—	—	—	—	—	—	—
	01/01/06	—	\$ 283,904	\$ 567,807	—	—	—	—	—	—	—
Ludger H. Viefhues	04/04/06	—	—	—	—	—	—	—	48,750	\$ 11.92	\$ 411,533
<i>Chief Financial Officer through December 2006 and Executive Vice-President, Finance</i>	05/01/06	—	—	—	—	—	—	17,000	—	\$ 11.35	\$ 192,950
	01/01/06	—	\$ 2,000	\$ 2,000	—	—	—	—	—	—	—
	01/01/06	—	\$ 160,000	\$ 320,000	—	—	—	—	—	—	—
William L. Turner (1)	06/21/06	—	—	—	—	—	—	—	17,000	\$ 8.76	\$ 105,465
<i>Chief Financial Officer since January 2007 and Executive Vice-President, Finance</i>	08/28/06	—	—	—	—	—	—	—	120,000	\$ 7.63	\$ 649,308
	08/28/06	—	\$ 500	\$ 500	—	—	—	—	—	—	—
	08/28/06	—	\$ 55,385	\$ 110,769	—	—	—	—	—	—	—

- (1) On June 21, 2006, Mr. Turner received an option grant to purchase 17,000 shares of common stock. These options were granted to him as a director in accordance with the Company's director compensation plan. Although he resigned as a director upon becoming an employee as of August 2006, he continues to hold and vest in these options as an employee.
- (2) Grant date fair value is calculated in accordance with SFAS No. 123(R). The Company uses the Black-Scholes model to calculate fair value to determine stock option-based compensation expense. For more information regarding the assumptions used in determining grant date fair value under SFAS No. 123(R), refer to the notes to the Company's consolidated financial statements included in the Company's 2006 Annual Report on Form 10-K.

Option awards granted in 2006 to executive officers were granted under the Company's 2005 Equity Incentive Plan and have seven-year terms. All options were granted with an exercise price equal to fair market value of the Company's common stock on the date of grant (i.e., the closing sale price as quoted on the NASDAQ Global Select Market on the date of grant). Except as set forth below, all options vest over a period of four years at a rate of 25 percent after one year and 1/48th of the initial amount granted each month thereafter, conditioned upon continued employment with the Company.

Restricted stock awards granted in 2006 to executive officers were granted under the Company's 2005 Equity Incentive Plan. Except as set forth below, all restricted stock units vest over a period of four years at a rate of 25 percent after one year and 1/16th of the initial amount granted each quarter thereafter, conditioned upon continued employment with the Company.

Options to purchase common stock and shares of restricted stock granted to Mr. Viefhues in 2006 vest over twelve months.

Equity Awards Outstanding at December 31, 2006

The following table provides information as of December 31, 2006 regarding unexercised options and unvested restricted stock units held by each of the Company's executive officers. A table legend describing the amounts included in each column is included below the table.

Name and Title	Option Awards					Stock Awards			
	I	II	III	IV	V	VI	VII	VIII	IX
David L. Dutton	2,000	—	—	\$ 10.00	01/03/07	—	—	—	—
<i>Chief Executive Officer and</i>	28,500	—	—	\$ 9.38	06/17/07	—	—	—	—
<i>Director</i>	15,000	—	—	\$ 7.00	12/31/07	—	—	—	—
	22,500	—	—	\$ 7.06	05/20/09	—	—	—	—
	15,000	—	—	\$ 15.25	12/16/09	—	—	—	—
	40,000	—	—	\$ 10.44	01/02/11	—	—	—	—
	200,000	—	—	\$ 7.65	12/13/11	—	—	—	—
	60,000	—	—	\$ 6.95	01/22/12	—	—	—	—
	5,466	—	—	\$ 1.90	09/23/12	—	—	—	—
	40,000	—	—	\$ 3.08	11/08/12	—	—	—	—
	6,383	—	—	\$ 2.35	01/15/13	—	—	—	—
	73,333	6,667 ⁽¹⁾	—	\$ 2.23	04/10/13	—	—	—	—
	1,705	—	—	\$ 8.80	09/09/13	—	—	—	—
	1,000	—	—	\$ 12.29	12/29/13	—	—	—	—
	626	—	—	\$ 12.00	03/01/14	—	—	—	—
	100,000	—	—	\$ 11.03	03/12/14	—	—	—	—
	100,000	—	—	\$ 9.25	03/08/15	—	—	—	—
	—	81,250 ⁽²⁾	—	\$ 11.92	04/04/13	—	—	—	—
	—	—	—	—	—	35,000 ⁽⁹⁾	\$ 326,200	—	—
Robert B. MacKnight	75,000	—	—	\$ 8.33	08/20/11	—	—	—	—
<i>Chief Operating Officer and</i>	175,000	—	—	\$ 7.65	12/13/11	—	—	—	—
<i>President</i>	30,000	—	—	\$ 3.08	11/08/12	—	—	—	—
	4,474	—	—	\$ 2.85	01/14/13	—	—	—	—
	17,500	5,000 ⁽¹⁾	—	\$ 2.23	04/10/13	—	—	—	—
	60,000	—	—	\$ 6.95	01/22/12	—	—	—	—
	1,449	—	—	\$ 8.80	09/09/13	—	—	—	—
	1,000	—	—	\$ 12.29	12/29/13	—	—	—	—
	532	—	—	\$ 12.00	03/01/14	—	—	—	—
	75,000	—	—	\$ 11.03	03/12/14	—	—	—	—
	75,000	—	—	\$ 9.25	03/08/15	—	—	—	—
	12,394	22,606 ⁽³⁾	—	\$ 7.19	07/01/12	—	—	—	—
	—	65,000 ⁽²⁾	—	\$ 11.92	04/04/13	—	—	—	—
	—	—	—	—	—	23,000 ⁽⁹⁾	\$ 214,360	—	—

Name and Title	Option Awards					Stock Awards			
	I	II	III	IV	V	VI	VII	VIII	IX
Ludger H. Viefhues	150,000	—	—	\$ 10.44	01/02/11	—	—	—	—
<i>Chief Financial Officer through</i>	100,000	—	—	\$ 7.65	12/13/11	—	—	—	—
<i>December 2006 and Executive</i>	4,372	—	—	\$ 1.90	09/23/12	—	—	—	—
<i>Vice-President, Finance</i>	30,000	—	—	\$ 3.08	11/08/12	—	—	—	—
	4,211	—	—	\$ 2.85	01/14/13	—	—	—	—
	55,000	5,000 ⁽¹⁾	—	\$ 2.23	04/10/13	—	—	—	—
	1,364	—	—	\$ 8.80	09/09/13	—	—	—	—
	1,000	—	—	\$ 12.29	12/29/13	—	—	—	—
	500	—	—	\$ 12.00	03/01/14	—	—	—	—
	75,000	—	—	\$ 11.03	03/12/14	—	—	—	—
	75,000	—	—	\$ 9.25	03/08/15	—	—	—	—
	—	48,750 ⁽⁴⁾	—	\$ 11.92	04/04/13	—	—	—	—
	—	—	—	—	—	17,000 ⁽¹⁰⁾	\$ 158,440	—	—
William I. Turner	30,000	—	—	\$ 2.67	11/07/12	—	—	—	—
<i>Chief Financial Officer since</i>	11,250	3,750 ⁽⁵⁾	—	\$ 2.83	05/22/13	—	—	—	—
<i>January 2007 and Executive</i>	17,000	—	—	\$ 10.23	05/19/14	—	—	—	—
<i>Vice-President, Finance</i>	4,250	12,750 ⁽⁶⁾	—	\$ 6.98	05/25/15	—	—	—	—
	—	17,000 ⁽⁷⁾	—	\$ 8.76	06/21/13	—	—	—	—
	—	120,000 ⁽⁸⁾	—	\$ 7.63	08/28/13	—	—	—	—

Table Legend

Option Awards

- I** Number of Securities Underlying Unexercised Options Exercisable
- II** Number of Securities Underlying Unexercised Options Unexercisable
- III** Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options
- IV** Option Exercise Price
- V** Option Expiration Date

Stock Awards

- VI** Number of Shares or Units of Stock That Have Not Vested
- VII** Market Value of Shares or Units of Stock That Have Not Vested
- VIII** Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested
- IX** Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested

- (1) For this option award, 25% of the initial grant vested on April 10, 2003, and 1/48th of the initial amount vests/vested each month thereafter.
- (2) For this option award, 25% of the initial grant vests on April 4, 2007, and 1/48th of the initial amount vests each month thereafter.
- (3) For this option award, 25% of the initial grant vested on July 1, 2006, and 1/48th of the initial amount vests/vested each month thereafter.
- (4) For this option award, 100% of the initial grant vests on April 4, 2007.
- (5) For this option award, 25% of the initial grant vested on May 22, 2004 and 1/4th of the initial amount vests/vested each year thereafter.
- (6) For this option award, 25% of the initial grant vested on May 25, 2006, and 1/4th of the initial amount vests each year thereafter.
- (7) For this option award, 25% of the initial grant vests on June 21, 2007, and 1/4th of the initial amount vests each year thereafter.
- (8) For this option award, 25% of the initial grant vests on August 28, 2007, and 1/48th of the initial amount vests each month thereafter.
- (9) For this restricted stock unit award, 25% of the initial grant vests on May 1, 2007, and 1/16th of the initial amount vests each quarter thereafter.
- (10) For this restricted stock unit award, 100% of the initial grant vests on May 1, 2007.

Equity Awards Exercised or Vested During the Year Ended December 31, 2006

The following table provides the specified information concerning exercises of options to purchase common stock by, and restricted stock units that vested during the year ended December 31, 2006 with respect to, the persons named in the Summary Compensation Table above.

Name and Title	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise	Value Realized On Exercise	Number of Shares Acquired on Vesting	Value Realized On Vesting
David L. Dutton <i>Chief Executive Officer and Director</i>	—	—	—	—
Robert B. MacKnight <i>Chief Operating Officer and President</i>	41,872	\$ 423,143	—	—
Ludger H. Viefhues <i>Chief Financial Officer through December 2006 and Executive Vice-President, Finance</i>	—	—	—	—
William I. Turner <i>Chief Financial Officer since January 2007 and Executive Vice-President, Finance</i>	—	—	—	—

Number of shares acquired on exercise includes all shares acquired upon exercise of the option, or portion of the option, without deducting shares withheld to satisfy tax obligations, sold to pay the exercise price or otherwise disposed of. Value realized is calculated by multiplying the difference between the market value, deemed to be the closing market price of the Company's common stock on the NASDAQ Global Select Market on the exercise date, and exercise price by the number of shares acquired upon exercise.

Non-Qualified Deferred Compensation

Name and Title	Executive Contributions in Last Fiscal Year (1)	Registrant Contributions in Last Fiscal Year	Aggregate Earnings in Last Fiscal Year (2)	Aggregate Withdrawals/ Distributions	Aggregate Balance at Last Fiscal Year End
David L. Dutton <i>Chief Executive Officer and Director</i>	—	—	—	—	—
Robert B. MacKnight <i>Chief Operating Officer and President</i>	\$ 40,630	—	\$ 3,357	—	\$ 43,987
Ludger H. Viefhues <i>Chief Financial Officer through December 2006 and Executive Vice-President, Finance</i>	\$ 121,294	—	\$ 3,125	—	\$ 124,419
William I. Turner <i>Chief Financial Officer since January 2007 and Executive Vice-President, Finance</i>	—	—	—	—	—

- (1) Executive contributions to the deferred compensation plan of \$40,630 for Mr. MacKnight and \$121,294 for Mr. Viefhues have also been included in the amount reported as salary for the year ended December 31, 2006 in the summary compensation table above.
- (2) For 2006, deferred compensation earnings of \$3,357 for Mr. MacKnight and \$3,125 for Mr. Viefhues were solely based on the market performance of the investments, selected at the direction of the individual employee, and did not represent preferential or above market earnings.

Effective January 1, 2006, the Company adopted a deferred compensation plan. Under the deferred compensation plan, the Company provides eligible employees and non-employee members of its Board of Directors who participate in the plan (“Participants”) the opportunity to defer a specified percentage of their base salary or retainer fees for participation on the Company’s Board and Board Committees. In addition, the Company’s Board of Directors may make discretionary contributions to the accounts of one or more Participants. In 2006, there were no discretionary contributions made by the Board of Directors.

Under the Plan, the Company is obligated to deliver on a future date the deferred compensation credited to a Participant’s account, adjusted for any positive or negative investment results from investment alternatives selected by the Participant under the Plan (the “Obligations”). The Obligations are unsecured general obligations of the Company and rank in parity with other unsecured and unsubordinated indebtedness of the Company. The Obligations are not transferable, except upon death of a Participant. There is no trading market for the Obligations.

Employment Contracts, Termination of Employment and Change in Control Arrangements

The Company has entered into a Severance and Executive Change in Control Agreement with Mr. Dutton, the Company's Chief Executive Officer, and has entered into an Executive Change in Control Agreement with each of the other executive officers, Mr. MacKnight, Mr. Viefhues and Mr. Turner (collectively, these agreements are the "Severance Agreements"). Each Severance Agreement provides that severance benefits become payable to the executive upon the occurrence of certain types of severance events, as follows:

Name and Title	Type of Severance Event (1)	Continuation of Salary Benefit	Continuation of Insurance Benefit	Accelerated Vesting of Stock Awards
David L. Dutton <i>Chief Executive Officer and Director</i>	I.	\$ 450,000	\$ 15,234	\$ 824,369
	II.	\$ 900,000	\$ 25,042	\$ 824,369
Robert B. MacKnight <i>Chief Operating Officer and President</i>	I.	\$ 285,000	\$ 7,964	\$ 727,042
	II.	\$ 570,000	\$ 15,929	\$ 727,042
Ludger H. Viefhues <i>Chief Financial Officer through December 2006 and Executive Vice-President, Finance</i>	I.	\$ 240,000	\$ 7,964	\$ 754,588
	II.	\$ 480,000	\$ 15,929	\$ 754,588
William I. Turner <i>Chief Financial Officer since January 2007 and Executive Vice-President, Finance</i>	I.	\$ 240,000	\$ 11,426	\$ 145,188
	II.	\$ 480,000	\$ 22,852	\$ 145,188

(1) The Severance Agreements with each of the executive officers identify two types of events that would trigger the benefits described above. Each such event and the material consequences thereof under the Severance Agreements are further described below.

I. In the event that, within 12 months following a "Change in Control" of the Company (described below), any of the executive officers is terminated by the Company without "good cause" (defined as (i) the performance by the relevant executive officer of any act or failure to perform any act in bad faith and to the detriment of the Company, (ii) dishonesty, material breach of any agreement with the Company or intentional misconduct by the relevant executive officer or (iii) the commission by the relevant officer of a crime involving dishonesty, breach of trust or physical or emotional harm to any person), then, upon signing a general release, the executive is entitled to receive continuing payment of his then-current base salary and continued coverage under the Company's medical and dental plan, for a severance period of 12 months for the Chief Executive Officer, and nine months for the other executive officers. The Chief Executive Officer is entitled to this same 12-month severance benefit in the event his employment is terminated by the Company without good cause, in the absence of a Change in Control.

II. In the event that, within 12 months following a Change in Control of the Company, any of the executive officers terminates his employment with the Company for "good cause" (defined to include a significant reduction in the executive's base salary, the assignment of duties which reflect a material adverse change in his responsibility or status, and transfer of his place of employment by 50 miles or more), and gives 30 days written notice of termination to the Company, then, upon signing a general release, the executive is entitled to receive continuing payment of his then-current base salary and continued coverage under the Company's medical and dental plan, for a severance period of 24 months for the Chief Executive Officer (limited to 18 months for continuation of medical and dental benefits), and 18 months for the other executive officers.

In addition, the Severance Agreements provide for accelerated vesting of all of the executive officer's unvested stock options following a Change in Control in the event of a termination that triggers severance benefits. If any part of the benefits under a Severance Agreement is determined by the Company's accountants to be an excess parachute payment under Section 280G of the Internal Revenue Code, then at the executive's option, the payment will be reduced to the minimum extent necessary to have no excess parachute payment.

"Change in Control" is defined in the Severance Agreements, by reference to the 2005 Equity Incentive Plan, as an acquisition by any person of beneficial ownership of more than 50% of the Company's voting stock, certain mergers or other business combinations involving the Company, the sale, exchange or transfer of all or substantially all of the assets of the Company, or a liquidation or dissolution of the Company.

Pursuant to the Company's 2005 Equity Incentive Plan, in the event that a Change in Control of the Company, as defined therein, occurs and the acquiring corporation does not assume or substitute new options for outstanding options granted under the 2005 Equity Incentive Plan, any unexercised and unvested portions of the outstanding options will become immediately exercisable and vested in full as of the date of the Change in Control. Any option or portion thereof that is neither assumed nor substituted with new options by the acquiring corporation nor exercised as of the date of the Change in Control will terminate and cease to be outstanding effective as of the date of the Change in Control.

Pursuant to the Company's 1994 Employee Stock Purchase Plan, as amended, in the event of a proposed sale of all or substantially all of the Company's assets, or a merger or consolidation of the Company, then in the sole discretion of the plan administrator, (i) each purchase option granted under the 1994 Employee Stock Purchase Plan shall be assumed or an equivalent purchase option shall be substituted by the successor corporation, (ii) all outstanding purchase options shall be deemed exercisable on a date set by the administrator that is on or before the date of consummation of such merger, consolidation or sale or (iii) all outstanding purchase options shall terminate and the accumulated payroll deductions shall be returned to the participants.

Pension Benefits

None of the Company's executive officers are covered by a pension plan or other similar benefit plan that provides for payments or other benefits at, following, or in connection with retirement.

Code of Ethics

The Board of Directors of the Company has approved a Code of Ethics and Business Conduct that applies to all employees, including the Company's Chief Executive Officer, President and Chief Operating Officer, Chief Financial Officer and Controller. A copy of the Code of Ethics and Business Conduct can be found posted on the Company's website (<http://www.mattson.com>). To the extent permitted, the Company intends to disclose any future amendments to its Code of Ethics and Business Conduct by posting the changed version on the same website.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934 requires the Company's officers and directors, and persons who own more than five percent of a registered class of the Company's equity securities, to file reports of ownership and changes in ownership with the Securities and Exchange Commission. Officers, directors and greater than five percent shareholders are required by SEC regulations to furnish the Company with copies of all Section 16(a) forms filed by such persons.

To the Company's knowledge, based solely on review of the copies of such reports furnished to the Company and written representation from certain reporting persons that no other reports were required, the Company believes that during 2006, other than as described in the following sentence, its executive officers, directors and 5% stockholders complied with all Section 16(a) filing requirements. The Form 3 filing due July 26, 2007 and the Form 4 filing due July 19, 2007, both of which were for an initial equity grant to Andrew Moring, Corporate Controller, upon his joining the Company July 17, 2007, were filed 8 and 15 days late, respectively.

REPORT OF THE COMPENSATION COMMITTEE ON EXECUTIVE COMPENSATION

The Compensation Committee, which is comprised of three independent directors, recommends to the Company's Board of Directors compensation of Company directors and officers and oversees the administration of the Company's 2005 Equity Incentive Plan.

Management of the Company has prepared the Compensation Discussion and Analysis as required by Item 402(b) of Regulation S-K, and the Compensation Committee has reviewed and discussed it with management. Based on this review and discussion, the Compensation Committee has recommended to the Board of Directors that the Compensation Discussion and Analysis be included in the Proxy Statement for the Company's 2007 Meeting of Stockholders.

COMPENSATION COMMITTEE

Dr. Hans-Georg Betz, Chairman
Kenneth Kannappan
Kenneth G. Smith

April 26, 2007

PROPOSAL ONE

ELECTION OF DIRECTORS

The Company has a classified Board of Directors consisting of two Class I directors (John Bolger and Kenneth Kannappan), three Class II directors (Dr. Hans-Georg Betz, David Dutton and Kenneth Smith) and two Class III directors (Dr. Jochen Melchior and Shigeru Nakayama). Class I, II and III directors will serve until the Annual Meetings of Stockholders to be held in 2007, 2008, and 2009, respectively, and until their respective successors are duly elected and qualified. At each Annual Meeting of Stockholders, directors are elected for a full term of three (3) years to succeed those directors whose terms expire on the Annual Meeting date.

The term of the Class I directors will expire on the date of the upcoming Annual Meeting. Accordingly, two persons are to be elected to serve as Class I directors of the Board of Directors at the Meeting. Management's nominees for election by the stockholders to those two positions are the current Class I members of the Board of Directors, John Bolger and Kenneth Kannappan. Unless otherwise directed by stockholders, the proxyholders will vote all shares represented by proxies held by them for the election of the management nominees. In the event that either Mr. Bolger or Mr. Kannappan becomes unavailable or unable to serve as a director of the Company prior to the voting, the proxyholders will refrain from voting for the unavailable nominee and will vote for a substitute nominee in the exercise of their best judgment.

Vote Required and Recommendation of the Board of Directors

If a quorum is present for voting at the Annual Meeting, the two nominees for Class I director receiving the highest number of votes will be elected as Class I directors. Abstentions and broker non-votes will each be counted as present for purposes of determining the presence of a quorum, but will have no effect on the vote.

The Board unanimously recommends a vote FOR the nominees listed herein.

The following table sets forth, for the Company's current directors, including the Class I nominees to be elected at this Meeting, information with respect to their ages as of December 31, 2006 and their background.

Name	Age	Title	Director Since
<i>Class I directors whose terms expire at the 2007 Annual Meeting of Stockholders:</i>			
<i>Nominees for reelection at the Annual Meeting:</i>			
John C. Bolger	60	Director	December 2006
Kenneth Kannappan	47	Director	July 1998
<i>Class II directors whose terms expire at the 2008 Annual Meeting of Stockholders:</i>			
Dr. Hans-Georg Betz	60	Director	January 2001
David L. Dutton	46	Director	December 2001
Kenneth G. Smith	57	Director	August 1994
<i>Class III directors whose terms expire at the 2009 Annual Meeting of Stockholders:</i>			
Dr. Jochen A. Melchior	64	Director (Chairman)	January 2001
Shigeru Nakayama	71	Director	May 1996

Dr. Jochen A. Melchior has served as a director and Chairman since January 2001. Dr. Melchior served as a member of the Management Board of STEAG AG from June 1987 until December 2004, and as Chairman of the Management Board and Chief Executive Officer of STEAG AG from November 1995 until December 2004. From November 1995 until December 2004, Dr. Melchior also served as Chairman of the Supervisory Board of STEAG Electronic Systems AG. Dr. Melchior currently serves as a member of the Supervisory Boards of AXA Service AG, National-Bank AG, KHS AG, Universitaetsklinikum Essen and Kloeckner Werke AG. He serves as Chairman of the Supervisory Board of LOGIKA AG and as Vice-Chairman of the Supervisory Board of Preventicum GmbH.

Dr. Hans-Georg Betz has served as a director since January 2001. Dr. Betz also serves as Chairman of the Company's Compensation Committee. Since August 2005, Dr. Betz has served as President and Chief Executive Officer of Advanced Energy Industries, Inc. Dr. Betz served as Chief Executive Officer of West STEAG Partners from August 2001 until August 2005, as Chairman of the Management Board and Chief Executive Officer of STEAG Electronic Systems AG from January 1996 to July 2001, and as a member of the Management Board of STEAG Electronic Systems AG from October 1992 to July 2001. Dr. Betz served as a member of the Management Board of STEAG AG from January 1997 to July 2001.

John C. Bolger has been a director since December 2006. Mr. Bolger also serves as Chairman of the Company's Audit Committee. Mr. Bolger is a retired Vice President of Finance and Administration of Cisco Systems, Inc., a manufacturer of computer networking systems. Mr. Bolger is currently a private investor and has served as a director of Cogent, Inc. since 2004; Integrated Device Technology, Inc. since 1993; Mission West Properties, Inc. since 1998; and Wind River Systems, Inc. since 2000; all of which are public companies. Mr. Bolger received a B.A. from the University of Massachusetts in 1969 and an M.B.A. from Harvard University in 1971. He is a Certified Public Accountant.

David L. Dutton has served as Mattson's Chief Executive Officer since June 2005 and as a director since December 2001. Prior to that, Mr. Dutton served as Mattson's Chief Executive Officer and President since October 2001. From 1998 to 2000, Mr. Dutton served as Executive Vice President and Chief Operating Officer of Mattson. Mr. Dutton previously served as President of the Plasma Products Division. Mr. Dutton joined Mattson in 1994 as General Manager of the Strip/Plasma Etch division. Mr. Dutton started his career in the semiconductor industry in 1984 and held engineering management positions for wafer processing and development at Intel Corporation and Maxim Integrated Products, Inc. Mr. Dutton serves on the Board of Directors for the Bay Area Council.

Kenneth Kannappan has served as a director since July 1998. Mr. Kannappan has served as the President and Chief Executive Officer of Plantronics, Inc., a telecommunications equipment manufacturer, since March 1998. From 1995 to 1998, Mr. Kannappan held various executive positions at Plantronics, Inc. From 1991 to 1995, Mr. Kannappan was Senior Vice President of Kidder, Peabody & Co. Incorporated, an investment banking company. Mr. Kannappan currently serves as a member of the board of directors of Plantronics, Inc. and as Chairman of the Board of Integrated Device Technology, Inc., a manufacturer of communications integrated circuits.

Shigeru Nakayama has served as a director since May 1996. Since 1996, Mr. Nakayama has been a business consultant to Semiconductor Equipment and Materials International, an international association of semiconductor equipment manufacturers and materials suppliers. From 1984 to 1994, Mr. Nakayama was the President of SEMI Japan, a member of Semiconductor Equipment and Materials International.

Kenneth G. Smith has served as a director since August 1994. Mr. Smith was President, Chief Operating Officer and a Director of WaferTech, a semiconductor manufacturer, from May 1996 until April 2000. From 1991 to 1995, Mr. Smith was Vice President of Operations at Micron Semiconductor, Inc., a semiconductor manufacturer.

Board Meetings and Committees

During the year ended December 31, 2006, the Board of Directors held five meetings. During 2006, each director attended at least 75% of the meetings of the Board and of each of the Committees on which he served. The Board of Directors has determined that Messrs. Betz, Bolger, Kannappan, Melchior, Nakayama and Smith are each an independent director for purposes of the applicable NASDAQ listing standards. William Turner, the Company's Chief Financial Officer, was a director from November 2002 to August 2006, when he resigned as a director to join the Company as an employee. The Board of Directors of the Company has a standing Audit Committee,

Compensation Committee and Nominating and Governance Committee, each of which has a written charter. The Committee charters can be viewed at the Company's web site at <http://www.mattson.com>.

For a description of the principal functions of the Audit Committee, see "Report of the Audit Committee." At December 31, 2006, the Audit Committee consisted of Mr. Bolger, Mr. Kannappan and Mr. Smith, each of whom is independent for purposes of the NASDAQ listing standards. In 2006, Mr. Turner served as the Company's Audit Committee Chairman until his resignation in August 2006 to join the Company as an employee. The Audit Committee held ten meetings during 2006.

The principal functions of the Compensation Committee are to set the salary and bonus earned by the Chief Executive Officer and other executive officers of the Company; to establish the compensation of directors for service on the Board and Board Committees of the Company; to review all components of executive officer and director compensation for consistency with the Committee's compensation philosophy as in effect from time to time; to review compensation policies applicable to the entire Company; to oversee the administration of the Company's stock option and stock purchase plans; and to perform such other duties regarding compensation for employees, consultants and directors as the Board may delegate from time to time. See "Compensation Discussion and Analysis – Corporate Governance." During 2006, the Compensation Committee consisted of Dr. Betz, Mr. Kannappan and Mr. Smith, each of whom is independent for purposes of the NASDAQ listing standards. The Compensation Committee held two meetings during 2006.

The principal functions of the Nominating and Governance Committee are to identify individuals qualified to become Board members; select, or recommend to the Board, director nominees for each election of directors; develop and recommend to the Board criteria for selecting qualified director candidates; consider committee member qualifications, appointment and removal; and recommend corporate governance principles applicable to the Company, and provide oversight in the evaluation of the Board and each committee. During 2006, the Nominating and Governance Committee consisted of Dr. Betz, Mr. Nakayama, and Mr. Smith. Each of the members of the Nominating and Governance Committee is independent for purposes of the NASDAQ listing standards. The Nominating and Governance Committee held two meetings during 2006.

Compensation of Directors

The following table provides compensation information for the year ended December 31, 2006 for each non-employee member of the Company's Board of Directors:

Name	Fees Earned or Paid in Cash	Stock Awards	Option Awards	Non-Equity Incentive Plan Compensation	Change in Pension Value and Nonqualified Deferred Compensation	All Other Compensation	Total
					Earnings	Compensation	
Dr. Hans-Georg Betz	\$ 49,000	—	\$ 37,413	—	—	—	\$ 86,413
John C. Bolger	—	—	—	—	—	—	—
Kenneth Kannapan (1)	—	—	\$ 37,413	—	—	—	\$ 37,413
Dr. Jochen A. Melchior	\$ 38,000	—	\$ 44,562	—	—	—	\$ 82,562
Shigeru Nakayama	\$ 36,000	—	\$ 33,421	—	—	—	\$ 69,421
Kenneth G. Smith	\$ 46,000	—	\$ 37,413	—	—	—	\$ 83,413
William I. Turner	\$ 32,000	—	\$ 38,726	—	—	—	\$ 70,726

(1) Mr. Kannapan received \$47,000 in fees during the year ended December 31, 2006 which have been excluded from this table, as all of such fees were contributed to his non-qualified deferred compensation account.

In 2006, non-employee directors (other than the Chairman of the Board) were paid \$7,000 per Board of Directors meeting attended. The Chairman of the Board was paid \$10,000 per meeting attended. Non-employee

directors were paid \$1,000 or, in the case of the Committee Chairman, \$2,000 per meeting of each Committee of the Board attended. Beginning in 2007, the Chairman of the Board will receive a \$55,000 annual retainer, other non-employee directors will receive a \$35,000 annual retainer, and all non-employee directors will receive \$1,000 per Board meeting attended. The Chairman of the Audit Committee will receive an additional \$10,000 annual retainer, the Chairman of the Compensation Committee will receive an additional \$7,000 annual retainer, and all committee members will receive \$1,000 per committee meeting attended. The Company reimburses its non-employee directors for travel expenses and other out-of-pocket expenses associated with attending meetings.

The Company's 2005 Equity Incentive Plan allows for the grant of options and other forms of equity to the Company's non-employee directors. Currently, each non-employee director is granted an initial option to purchase 30,000 shares on the date of appointment or election to the Board. In addition, in 2006 each non-employee director who had continuously served on the Board for six months as of the date of the Annual Meeting of Stockholders was granted an option to purchase 15,000 shares or, in the case of the Chairman, an option to purchase 20,000 shares, on the date of the Annual Meeting of Stockholders. Beginning in 2007, each non-employee director who has continuously served on the Board for six months as of the date of the Annual Meeting of Stockholders will be granted 2,000 restricted stock units and an option to purchase 10,000 shares or, in the case of the Chairman, 2,000 restricted stock units and an option to purchase 14,000 shares, on the date of each Annual Meeting of Stockholders. In addition, each member of the Audit Committee who attends at least 75% of the Committee's meetings during the prior year is granted an option to purchase an additional 2,000 shares on the date of the Annual Meeting of Stockholders.

Option award amounts are presented based on their grant date fair market value. Grant date fair value is calculated in accordance with SFAS No. 123(R). The Company uses the Black-Scholes model to calculate fair value to determine stock option-based compensation expense. For more information regarding the assumptions used in determining grant date fair value under SFAS No. 123(R), refer to the notes to the Company's consolidated financial statements included in the Company's 2006 Annual Report on Form 10-K.

Policy and Procedure for Director Nomination

When there is a vacancy on the Board of Directors, the Nominating and Governance Committee is responsible for evaluating candidates to fill such vacancy. The Nominating and Governance Committee is responsible for reviewing the qualifications, independence and skill of all candidates for election to the Board of Directors. The Nominating and Governance Committee does not currently have a formalized policy with regard to the assessment of director candidates. The Nominating and Governance Committee believes that is appropriate not to have any such formalized policy in order to afford the Committee with the maximum flexibility to assess and select director candidates based on the criteria deemed most relevant by the Committee at such time. The Nominating and Governance Committee intends to consider adopting such a policy.

The Nominating and Governance Committee will consider director candidates recommended by stockholders of the Company, based on the same criteria that would apply to candidates identified by a Committee member. There are no specific, minimum qualifications that have been formulated by the Nominating and Governance Committee that must be met by a Nominating and Governance Committee-recommended nominee. The Nominating and Governance Committee believes that it is desirable for a majority of the Company's directors to satisfy the definition of independence for purposes of the applicable NASDAQ listing standards, and for at least one director to possess the attributes necessary to be an "audit committee financial expert."

Any stockholder who wishes to recommend a candidate for nomination as a director should submit the recommendation in writing to the Company at its principal executive offices, to the attention of the Nominating and Governance Committee, not later than 120 calendar days before the one-year anniversary of the Company's mailing of its prior year's Proxy Statement to stockholders. A stockholder recommending a person as a director candidate may be requested by the Nominating and Governance Committee to provide further information for purposes of evaluating the candidate and for the purpose of providing appropriate disclosure to stockholders.

Stockholder Communications with the Directors

Any stockholder wishing to communicate with the full Board of Directors or any individual directors regarding the Company may write to the director, c/o William Turner, Secretary, Mattson Technology, Inc., 47131 Bayside Parkway, M/S 2064 Fremont, California 94538. Communications from stockholders to one or more directors will be collected and organized by the Company's Corporate Secretary under procedures approved by the independent directors. The Corporate Secretary will forward all communications to the Chairman of the Board of Directors, or to the identified director(s), as soon as practicable, although communications that are abusive, in bad taste or that present safety or security concerns may be handled differently. The Corporate Secretary may, in his discretion, not forward correspondence if it is primarily commercial in nature or if it relates to an improper or irrelevant topic. If multiple communications are received on a similar topic, the Corporate Secretary may, in his discretion, forward only representative correspondence.

Director Attendance at Annual Stockholder Meeting

The Company typically schedules a Board meeting in conjunction with the Annual Meeting of Stockholders. The Company expects, but does not require, that all directors will attend, absent a valid reason, such as a schedule conflict. Last year, all seven members of the Board of Directors attended the Annual Meeting.

Certain Relationships and Related Transactions, and Director Independence

Other than the transactions described immediately below, during the year ended December 31, 2006 and subsequent to such date, there was no transaction or series of transactions, and there is no proposed transaction or series of transactions, to which the Company was or is a party in which the amount involved exceeded or exceeds \$120,000 and in which any director, executive officer, holder of more than 5% of the Company's common stock or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest.

In Japan, the Company contracts outsource installation and repair services and sells spare parts through an unrelated party, Mattson Service Company (MSC). A director of the Company, Shigeru Nakayama, holds a minority, noncontrolling interest in MSC. In 2006, 2005 and 2004, the value of spare parts and services transactions between the Company and MSC were \$4.2 million, \$2.9 million and \$3.6 million, respectively. The Company's management believes that the payments of commissions to MSC related to the sales of spare parts to customers in Japan and the purchases of contract installation and repair services from MSC were on terms that represent the fair market value of these transactions.

The Company has entered into indemnification agreements with certain of its directors in which the Company has agreed to indemnify such directors to the fullest extent allowable under Delaware law if any such director is made a party to any action or threatened with any action as a result of such person's service or having served as an officer, director, employee or agent of the Company or having served, at the Company's request, as an officer, director, employee or agent of another company.

Under applicable Nasdaq listing standards, a majority of the members of the Company's Board of Directors must qualify as "independent," as affirmatively determined by the Board. The Board has determined that a majority of its members are "independent" within the meaning of the Nasdaq listing standards. Specifically, the following members of the Board have been determined to be independent: Dr. Betz, Mr. Bolger, Mr. Kannappan, Dr. Melchior Mr. Nakayama and Mr. Smith.

Consistent with the requirements of the SEC, Nasdaq and general corporate "best practices" proposals, the Board of Directors reviews all relevant transactions or relationships between each director and the Company, senior management and the Company's independent auditors. During this review, the Board considers whether there are any transactions or relationships between directors or any of their immediate family members (or any entity of which a director or an immediate family member is an executive officer, general partner or significant equity holder) and members of the Company's senior management or their affiliates. The Board consults with the Company's corporate counsel to ensure that the Board's determinations are consistent with all relevant securities and other laws and regulations regarding the definition of "independence," including those set forth in pertinent Nasdaq listing

standards, as in effect from time to time.

Each member of the Compensation Committee and the Corporate Governance and Nominating Committee of the Board is comprised entirely of directors who are independent within the meaning of the Nasdaq listing standards, and each member of the Audit Committee is independent under applicable Nasdaq listing standards and SEC rules.

Compensation Committee Interlocks and Insider Participation

During 2006, the Compensation Committee consisted of Dr. Betz, Mr. Kannappan and Mr. Smith. No interlocking relationship exists between any member of the Company's Board of Directors or Compensation Committee and any member of the board of directors or compensation committee of any other company.

PROPOSAL TWO

APPROVAL OF INCREASE IN SHARES RESERVED FOR ISSUANCE UNDER THE 2005 EQUITY INCENTIVE PLAN BY 2,500,000 SHARES

The Company's 1989 Stock Option Plan became effective on September 29, 1989, was amended and restated in April 1997 as the Company's Amended and Restated 1989 Stock Option Plan, and was amended and restated in May 2005 as the Company's 2005 Equity Incentive Plan (the "2005 Plan").

Over the more than 13 years the 2005 Plan has been in existence, there have been numerous increases in the total number of shares reserved for issuance under the plan. Most recently, in May 2004, the stockholders approved an increase in the number of shares reserved for issuance under the plan by an additional 1,500,000 shares, to 11,975,000 shares.

In March 2007, subject to stockholder approval, the Board approved an increase in the number of shares reserved for issuance under the 2005 Plan by an additional 2,500,000 shares, to 14,475,000 shares. As of April 26, 2007, no grant of options conditioned on stockholder approval of an increase in the share reserve under the 2005 Plan had been made to any employee.

Vote Required and Recommendation of the Board of Directors

Approval of this proposal requires the affirmative vote of a majority of the shares present or represented by proxy and entitled to vote on this proposal. If you hold your shares in your own name and abstain from voting on this matter, your abstention will have the same effect as a negative vote. If you hold your shares through a broker and you do not instruct the broker on how to vote on this proposal, your broker will not have authority to vote your shares. Broker non-votes will have no effect on the outcome of this vote. Abstentions and broker non-votes will each be counted as present for purposes of determining the presence of a quorum.

The Board of Directors believes that the proposed 2,500,000 share increase in the number of shares reserved for issuance under the Company's 2005 Plan is important if the Company is to be able to attract and retain qualified directors, officers and employees to the Company.

The Board unanimously recommends a vote FOR approval of the amendment of the 2005 Plan to increase the number of shares reserved for issuance by 2,500,000 shares.

Summary of the 2005 Plan

The following summary of the 2005 Plan, as amended by the amendment subject to this Proposal Two, is qualified in its entirety by (i) the specific language of the 2005 Plan, a copy of which is available to any stockholder upon request from the Company, sent to the attention of the Corporate Secretary at the Company's headquarters address set forth on the first page of this Proxy Statement, and is also available online to any interested person at the website of the Securities and Exchange Commission (<http://www.sec.gov>) through a search of the EDGAR database, where the 2005 Plan has been furnished as an Appendix to the 2005 Proxy Statement filed with the SEC on April 20, 2005, and (ii) the amendment subject to this Proposal Two, which is attached to this Proxy Statement on Schedule 14A as Appendix One.

General. The purpose of the 2005 Plan is to advance the interests of the Company by providing a means through which the Company may attract and retain able employees, directors and consultants upon whom responsibility for the success of the Company rests and to provide them with a proprietary interest in the development and financial success of the Company that will encourage them to devote their best efforts to the business of the Company. These incentives may be provided under the 2005 Plan through the grant of stock options, stock awards (stock purchase rights and stock bonuses) and restricted stock units.

Authorized Shares. The Company's shareholders have previously authorized a maximum aggregate total of 11,975,000 shares that may be issued under the 2005 Plan, prior to the shareholder approval of the 2,500,000 share increase requested in this proposal. A vote for this proposal would increase the maximum aggregate total

shares that may be issued under the 2005 Plan to 14,475,000. A total of 734,767 shares remained available for the future grant of awards under the 2005 Plan as of March 7, 2007. Shares issued under the 2005 Plan may be authorized but unissued or reacquired shares of common stock of the Company.

Share Accounting and Adjustments. Each share subject to a stock option granted under the 2005 Plan will reduce the number of shares remaining available for grant by one share, while each share subject to an award granted under the 2005 Plan other than a stock option will reduce the number of shares remaining available for grant by 1.75 shares. If any award granted under the 2005 Plan expires or otherwise terminates for any reason without having been exercised or settled in full, or if shares subject to forfeiture or repurchase at the participant's purchase price are forfeited or repurchased by the company, any such shares reacquired or subject to a terminated award will again become available for issuance under the 2005 Plan. Shares will not be treated as having been issued under the 2005 Plan and will therefore not reduce the number of shares available for grant to the extent a restricted stock unit award is settled in cash. The Compensation Committee of the Board of Directors, in its discretion and to prevent dilution or enlargement of participants' rights under the 2005 Plan, will adjust the number of shares authorized under the 2005 Plan, the numerical limits on awards described below under "Certain Award Limits" and the number and kind of shares and exercise price subject to outstanding awards in the event of any change in the Company's common stock through merger, consolidation, reorganization, reincorporation, recapitalization, reclassification, stock dividend, stock split, reverse stock split, split-up, split-off, spin-off, combination of shares, exchange of shares or similar change in the Company's capital structure, or if it makes a distribution to the Company's stockholders in a form other than common stock (excluding normal cash dividends) that has a material effect on the fair market value of the Company's common stock. In such circumstances, the Compensation Committee also has the discretion under the 2005 Plan to adjust the terms of outstanding awards as it deems appropriate. Without affecting the number of shares available for grant under the 2005 Plan, the Compensation Committee may authorize the issuance or assumption of benefits under the 2005 Plan in connection with any merger, consolidation or similar transaction on such terms and conditions as it deems appropriate.

Certain Award Limits. In addition to the limitation described above on the total number of shares of the Company's common stock that will be authorized for issuance under the 2005 Plan, the 2005 Plan limits the numbers of shares that may be issued under each type of award, subject to adjustment as described under "Share Accounting and Adjustments" above. No more than 14,475,000 shares may be issued upon the exercise of incentive stock options granted under the 2005 Plan. No more than 5% of the maximum aggregate number of shares authorized under the 2005 Plan may be issued pursuant to any awards other than options that provide for vesting more rapidly than over a period of three years if vesting is based upon continued service alone or that have a performance period of less than 12 months if vesting is based on the attainment of performance goals. To enable compensation in connection with certain types of awards to qualify as "performance-based" within the meaning of Section 162(m), the 2005 Plan establishes limits on the maximum aggregate number of shares for which awards may be granted to an employee in any fiscal year. No employee may be granted in any fiscal year one or more stock options or one or more awards of stock or restricted stock units for more than 500,000 shares. A nonemployee director may not be granted an award for more than 20,000 shares in any fiscal year, except that this limit may be increased by up to an additional 20,000 shares in the fiscal year in which the nonemployee director is first appointed or elected to the Board of Directors, by up to an additional 10,000 shares in any fiscal year in which the nonemployee director is serving as chairman of the Board, and by up to an additional 10,000 shares in any fiscal year in which the nonemployee director is serving on one or more committees of the Board, whether as a member or chairman of the committee.

Administration. The 2005 Plan will be administered by the Compensation and Corporate Governance Committee of the Board of Directors or another committee of the Board of Directors appointed to administer the 2005 Plan, or, in the absence of such committee, by the Board. (For purposes of this summary, the term "Committee" refers to either such committee or the Board of Directors.) Subject to the provisions of the 2005 Plan, the Committee will determine in its discretion the persons to whom and the times at which awards are granted, the types and sizes of awards, and all of their terms and conditions. The Committee may amend or cancel any award, waive any restrictions or conditions applicable to any award, and accelerate, extend or defer the vesting of any award. The Committee may delegate to one or more of its members or one or more officers of the Company the authority to grant awards under the 2005 Plan. The 2005 Plan provides, subject to certain limitations, for indemnification by the company of any director or officer against all reasonable expenses, including attorneys' fees, incurred in connection with any legal action arising from such person's action or failure to act in administering the

2005 Plan. All awards granted under the 2005 Plan will be evidenced by a written agreement between the Company and the participant specifying the terms and conditions of the award, consistent with the requirements of the 2005 Plan. The Committee will interpret the 2005 Plan and awards granted thereunder, and all determinations of the Committee will be final and binding on all persons having an interest in the 2005 Plan or any award.

Prohibition of Option Repricing. The 2005 Plan expressly provides that, without the approval of a majority of the votes cast in person or by proxy at a meeting of the Company's stockholders, the Committee may not provide for either the cancellation of outstanding options in exchange for the grant of new options at a lower exercise price or the amendment of outstanding options to reduce the exercise price.

Eligibility. Awards may be granted to employees, consultants and directors of the Company or any subsidiary or parent corporation. Incentive stock options may be granted only to employees. As of March 30, 2007, the Company had approximately 624 employees, including 4 executive officers, and 6 non-employee directors who would be eligible to receive awards under the 2005 Plan.

Stock Options. The Committee may grant incentive stock options within the meaning of Section 422 of the Internal Revenue Code, nonstatutory stock options or any combination of these. The Committee establishes the exercise prices of options, provided that each option must have an exercise price that is not less than the fair market value of a share of the Company's common stock on the date of grant, except that options granted pursuant to an assumption or substitution of another option in a manner that would qualify under Section 424(a) of the Internal Revenue Code may have exercise prices less than such minimum price. Any incentive stock option granted to a person who at the time of grant owns stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or any parent or subsidiary of the Company (a "10% Stockholder") must have an exercise price equal to at least 110% of the fair market value of a share of common stock on the date of grant. The closing price of the Company's common stock as reported on the NASDAQ Global Select Market on March 30, 2007 was \$9.10 per share. The 2005 Plan provides that the option exercise price may be paid in cash or its equivalent, by tender of shares of common stock owned by the participant having a fair market value not less than the exercise price, by means of a broker-assisted cashless exercise or by other consideration as approved by the Committee from time to time.

Options will become vested and exercisable at such times and subject to such conditions and restrictions as may be specified by the Committee, including the attainment of one or more performance goals, as described under "Performance Goals" below. The maximum term of an option granted under the 2005 Plan is seven years, provided that an incentive stock option granted to a 10% Stockholder must have a term not exceeding five years. Options will remain exercisable for such period of time following a participant's termination of service as determined by the Committee and provided in the participant's award agreement, provided that in no case may an option be exercised after its expiration date. Options will become exercisable in full upon a participant's termination of service due to death or disability.

Incentive stock options are not transferable by the participant other than by will or by the laws of descent and distribution, and are exercisable during the participant's lifetime only by the participant. If permitted by the Committee, nonstatutory stock options granted under the 2005 Plan may be transferred by gift or domestic relations order to one or more family members.

Stock Awards. The Committee may grant stock awards under the 2005 Plan either in the form of a stock purchase right, giving a participant an immediate right to purchase common stock, or in the form of a stock bonus, for which the participant furnishes consideration in the form of services to the company. The Committee determines the purchase price payable under stock purchase awards, which may be less than the then current fair market value of the Company's common stock. Stock awards may be subject to vesting conditions based on service or the achievement of such performance criteria as the Committee specifies, including the attainment of one or more performance goals as described under "Performance Goals" below. Unless otherwise provided by the Committee, a participant will forfeit any shares of stock as to which vesting conditions have not been satisfied prior to the participant's termination of service for any reason other than the participant's death or disability. Stock awards will vest in full upon the termination of the participant's service due to death or disability. Unless otherwise determined by the Committee, participants holding stock awards subject to vesting conditions will have the right to vote the

shares and to receive any dividends paid, except that dividends or other distributions paid in shares will be subject to the same restrictions as the original award.

Restricted Stock Units. The Committee may grant restricted stock units under the 2005 Plan, which represent rights to receive shares of the Company's common stock at a future date determined in accordance with the participant's award agreement. No monetary payment is required for receipt of restricted stock units or the shares issued in settlement of the award, the consideration for which is furnished in the form of the participant's services to the Company. The Committee may grant restricted stock unit awards subject to the attainment of one or more performance goals, as described under "Performance Goals" below, or may make the awards subject to vesting conditions similar to those applicable to stock awards. Unless otherwise provided by the Committee, a participant will forfeit any restricted stock units that have not vested prior to the participant's termination of service. Participants have no voting rights or rights to receive cash dividends with respect to restricted stock unit awards until shares of common stock are issued in settlement of such awards. However, the Committee may grant restricted stock units that entitle their holders to dividend equivalent rights, which are rights to receive additional restricted stock units for a number of shares whose value is equal to any cash dividends the Company pays. Restricted stock units will be settled by distribution to the participant of a number of whole shares of common stock equal to the number of restricted stock units subject to the award on the date on which the units vest or another date specified by the Committee or elected by the participant and set forth in the award agreement. Alternatively, the Committee may provide for settlement of restricted stock units in cash for an amount equal to the fair market value of the shares otherwise issuable to the participant.

Nonemployee Director Awards. The Committee may, from time to time, establish awards to be granted on a periodic, nondiscretionary basis to all the members of the Board of Directors who are not employees of the Company or any subsidiary or parent corporation. Additional awards may be granted to nonemployee directors in consideration of their service on one or more committees of the Board, service as chair of a committee of the Board, service as chairman of the Board or the individual's initial appointment or election to the Board. Subject to the limits described above under "Certain Award Limits," the Committee will determine the amount(s) and type(s) of such awards, which may be any type of award authorized under the 2005 Plan

Performance Goals. The Committee may grant awards or provide for the vesting of awards subject to the attainment of such performance goals over such performance periods as the Committee determines in writing and sets forth in a written agreement between the company and the participant. Prior to the beginning of the applicable performance period or such later date as permitted under Section 162(m) of the Internal Revenue Code in the case of an award intended to result in the payment of performance-based compensation under Section 162(m), the Committee will establish one or more performance goals applicable to the award. Performance goals will be based on the attainment of specified target levels with respect to one or more measures of business or financial performance of the Company and/or any subsidiary of the Company or any of their business units as may be selected by the Committee. The Committee, in its discretion, may base performance goals on one or more of the following such measures:

Revenue; sales; expenses; operating income; gross margin; operating margin; earnings before any one or more of: stock-based compensation expense, interest, taxes, depreciation and amortization; pre-tax profit; net operating income; net income; economic value added; free cash flow; operating cash flow; stock price; earnings per share; return on stockholder equity; return on capital; return on assets; return on investment; balance of cash, cash equivalents and marketable securities; market share; number of customers; customer satisfaction; product development; completion of a joint venture or other corporate transaction; inventory turns and days sales outstanding.

The target levels with respect to these performance measures may be expressed on an absolute basis or relative to a standard specified by the Committee. The degree of attainment of performance measures will be calculated in accordance with generally accepted accounting principles, and, according to criteria established by the Committee, excluding the effect (whether positive or negative) of changes in accounting standards or any extraordinary, unusual or nonrecurring item occurring after the establishment of the performance goals applicable to a performance award.

The Committee retains the discretion to eliminate or reduce, but not increase, the amount that would otherwise be payable on the basis of the performance goals attained to a participant who is a “covered employee” within the meaning of Section 162(m). If a participant’s service terminates for any reason prior to completion of the performance period applicable to an award, the 2005 Plan provides that, unless otherwise determined by the Committee, the award will be forfeited.

Change in Control. In the event of a “change in control,” as such term is defined by the 2005 Plan, the surviving, continuing, successor or purchasing entity or its parent may, without the consent of any participant, either assume or continue in effect any or all outstanding options or substitute substantially equivalent options for its stock. Any options that are not assumed or continued in connection with a change in control will become immediately exercisable and vested in full as of the date of the change in control and will terminate if not exercised as of the time of the change in control. In addition, the Committee may provide for the acceleration of vesting of any or all outstanding options upon such terms and to such extent as it determines. The 2005 Plan also authorizes the Committee, in its discretion and without the consent of any participant, to cancel each or any outstanding option upon a change in control in exchange for a payment to the participant with respect to each vested share (and each unvested share if so determined by the Committee) subject to the cancelled award of an amount equal to the excess of the consideration to be paid per share of common stock in the change in control transaction over the exercise price per share under the option. The Committee, in its discretion, may provide in the event of a change in control for the acceleration of vesting and/or settlement of any stock award or restricted stock unit award held by a participant upon such conditions and to such extent as determined by the Committee. The vesting and exercisability of nonemployee director awards automatically will accelerate in full upon a change in control.

Termination or Amendment. The 2005 Plan will continue in effect until its termination by the Committee, provided that all awards, other than incentive stock options, shall be granted within 10 years from the effective date of its adoption upon approval by the stockholders. Incentive stock options may not be granted after February 3, 2013. The Committee may terminate or amend the 2005 Plan at any time, provided that no amendment may be made without stockholder approval that would increase the maximum aggregate number of shares of stock authorized for issuance under the 2005 Plan, change the class of persons eligible to receive incentive stock options, permit the grant of an option with an exercise price less than the fair market value of share of common stock on the effective date of grant, or require stockholder approval under any applicable law, regulation or rule. No termination or amendment may affect any outstanding award unless expressly provided by the Committee, and, in any event, may not adversely affect an outstanding award without the consent of the participant unless necessary to comply with any applicable law, including, but not limited to, Section 409A of the Internal Revenue Code, providing rules regarding the taxation of nonqualified deferred compensation plans.

Summary of United States Federal Income Tax Consequences

The following summary is intended only as a general guide to the U.S. federal income tax consequences of participation in the 2005 Plan and does not attempt to describe all possible federal or other tax consequences of such participation or tax consequences based on particular circumstances.

Incentive Stock Options. A participant recognizes no taxable income for regular income tax purposes as a result of the grant or exercise of an incentive stock option. Participants who neither dispose of their shares within two years following the date the option was granted nor within one year following the exercise of the option will normally recognize a capital gain or loss equal to the difference, if any, between the sale price and the purchase price of the shares. In such event, the Company will not be entitled to any corresponding deduction for federal income tax purposes. In the event of the participant’s disposition of shares before both of these holding periods have been satisfied (a “disqualifying disposition”), the participant will recognize ordinary income equal to the spread between the option exercise price and the fair market value of the shares on the date of exercise, but in most cases not to exceed the gain realized on the sale, if lower. Any gain in excess of that amount will be a capital gain. If a loss is recognized, there will be no ordinary income, and such loss will be a capital loss. Any ordinary income recognized by the participant upon the disqualifying disposition of the shares generally should be deductible by the Company for federal income tax purposes, except to the extent such deduction is limited by applicable provisions of the Internal Revenue Code.

In general, the difference between the option exercise price and the fair market value of the shares on the date when an incentive stock option is exercised is treated as an adjustment in computing income that may be subject to the alternative minimum tax, which is paid if such tax exceeds the regular tax for the year. Special rules may apply with respect to certain subsequent sales of the shares in a disqualifying disposition, certain basis adjustments for purposes of computing the alternative minimum taxable income on a subsequent sale of the shares and certain tax credits that may arise with respect to participants subject to the alternative minimum tax.

Nonstatutory Stock Options. Options not designated or qualifying as incentive stock options are nonstatutory stock options having no special tax status. A participant generally recognizes no taxable income upon receipt of such an option. Upon exercising a nonstatutory stock option, the participant normally recognizes ordinary income equal to the difference between the exercise price paid and the fair market value of the shares on the date when the option is exercised. If the participant is an employee, such ordinary income generally is subject to withholding of income and employment taxes. Upon the sale of stock acquired by the exercise of a nonstatutory stock option, any gain or loss, based on the difference between the sale price and the fair market value of the shares on the exercise date, will be taxed as capital gain or loss. The Company generally should be entitled to a tax deduction equal to the amount of ordinary income recognized by the participant as a result of the exercise of a nonstatutory stock option, except to the extent such deduction is limited by applicable provisions of the Internal Revenue Code.

Stock Awards. A participant acquiring stock by means of a stock purchase right or stock bonus generally will recognize ordinary income equal to the excess of the fair market value of the shares on the “determination date” over the price paid, if any, for such shares. The “determination date” is the date on which the participant acquires the shares unless the shares are subject to a substantial risk of forfeiture and are not transferable, in which case the determination date is the earlier of (i) the date on which the shares become transferable or (ii) the date on which the shares are no longer subject to a substantial risk of forfeiture. If the determination date is after the date on which the participant acquires the shares, the participant may elect, pursuant to Section 83(b) of the Code, to have the date of acquisition be the determination date by filing an election with the Internal Revenue Service no later than 30 days after the date on which the shares are acquired. If the participant is an employee, such ordinary income generally is subject to withholding of income and employment taxes. Upon the sale of shares acquired pursuant to a stock award, any gain or loss, based on the difference between the sale price and the fair market value on the determination date, will be taxed as capital gain or loss. The Company generally should be entitled to a deduction equal to the amount of ordinary income recognized by the participant on the determination date, except to the extent such deduction is limited by applicable provisions of the Code.

Restricted Stock Unit Awards. A participant generally will recognize no income upon the grant of a restricted stock unit award. Upon the settlement of such awards, participants normally will recognize ordinary income in the year of settlement in an amount equal to the cash received and the fair market value of any shares of stock received. If the participant is an employee, such ordinary income generally is subject to withholding of income and employment taxes. Upon the sale of any shares received, any gain or loss, based on the difference between the sale price and the fair market value of the shares on the settlement date, will be taxed as capital gain or loss. The Company generally should be entitled to a deduction equal to the amount of ordinary income recognized by the participant on the settlement date, except to the extent such deduction is limited by applicable provisions of the Internal Revenue Code.

Options Granted to Certain Persons

The aggregate numbers of shares of common stock subject to options granted to certain persons under the 2005 Plan from its inception through March 7, 2007 are as follows: (i) David Dutton, President and Chief Executive Officer, 922,430 shares; (ii) Robert MacKnight, Chief Operating Officer, 736,827 shares; (iii) William Turner, Chief Financial Officer (since January 2007), Executive Vice President, Finance and Secretary, 236,000 shares, (iii) Ludger Viefhues, Executive Vice President, Finance (and Chief Financial Officer through December 2006), 550,197 shares; (v) all current executive officers as a group, an aggregate of 2,445,454 shares; (vi) all current directors and officers who are not executive officers as a group, an aggregate of 384,143 shares; and (vii) all employees, including current directors and officers who are not executive officers, as a group, an aggregate of 6,650,278 shares.

The Company's executive officers and non-employee directors have a financial interest in this Proposal Two because it would increase the number of shares available for issuance as stock options, stock purchase rights, stock bonuses or restricted stock units under the 2005 Plan to the Company's executive officers, non-employee directors and other employees. Since its inception, no options have been granted under the Plan to any other nominee for election as a director, or any associate of any such director, nominee or executive officer, and no other person has been granted five percent or more of the total amount of options granted under the Plan.

PROPOSAL THREE

RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTANTS

The Audit Committee of the Board of Directors has selected PricewaterhouseCoopers LLP ("PwC") as the Company's independent registered public accountants for the year ending December 31, 2007. Representatives of PwC are expected to be present at the Meeting, and will have the opportunity to make a statement if they desire to do so and will be available to respond to appropriate questions.

Stockholder ratification of the selection of PwC as the Company's independent registered public accountants is not required by the Company's Bylaws or otherwise. The Company is submitting the selection of PwC to the stockholders for ratification as a matter of good corporate practice. In the event the stockholders fail to ratify the selection, the Audit Committee of the Board of Directors will reconsider whether or not to retain that firm. Even if the selection is ratified, the Audit Committee in its discretion may direct the appointment of a different independent registered public accounting firm at any time during the year if the Audit Committee determines that such a change could be in the best interests of the Company and its stockholders.

Vote Required and Recommendation of the Board of Directors

The affirmative vote of a majority of the votes present or represented by proxy and entitled to a vote at the Annual Meeting of Stockholders, at which a quorum representing a majority of all outstanding shares of Common Stock of the Company is present and voting, is required for approval of this proposal. Abstentions and broker nonvotes will each be counted present for purposes of determining the presence of a quorum, but will not be counted as having been voted on this proposal.

The Board unanimously recommends a vote FOR the ratification of the appointment of PwC to serve as the Company's independent registered public accountants for the year ending December 31, 2007.

Audit and Related Fees

The following table presents fees paid by the Company for professional services rendered by PricewaterhouseCoopers LLP ("PwC") for the years ended December 31, 2006 and 2005.

	Fiscal 2006 Fees	Fiscal 2005 Fees
Audit Fees	\$ 1,607,315	\$ 2,065,000
Audit-Related Fees	—	140,000
Tax Fees	—	—
All Other Fees	—	—
Total Fees	\$ 1,607,315	\$ 2,205,000

Audit Fees were for professional services rendered for the audit of the Company's consolidated financial statements included in the Company's Annual Report on Form 10-K, review of the interim consolidated financial statements included in quarterly reports on Form 10-Q, audit and assessment of the Company's internal controls over financial reporting and services that are normally provided by PwC in connection with statutory and regulatory filings or engagements.

Audit-Related Fees were for assurance and related services that are reasonably related to the performance of the audit or review of the Company's consolidated financial statements and are not reported under "Audit Fees." These services include employee benefit plan audits, accounting consultations in connection with attest services that are not required by statute or regulation, and consultations concerning financial accounting and reporting standards.

Tax Fees were for professional services for Federal, state and international tax compliance, tax advice and tax planning.

All Other Fees were for services other than the services reported above.

The Audit Committee has concluded that the provision of the non-audit services listed above is compatible with maintaining the independence of PwC. All of the services reflected in the table were pre-approved by the Audit Committee.

Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accountants

The Audit Committee pre-approves all audit and permissible non-audit services provided by the independent auditors. These services may include audit services, audit-related services, tax services and other services. Any pre-approval is detailed as to the particular service or category of services, and is generally subject to a specific budget. The independent auditors and management periodically report to the Audit Committee regarding the extent of services provided by the independent auditors in accordance with this pre-approval, and the fees for the services performed to date. In addition, any audit and non-audit fees for newly proposed professional services that arise during the year, or changes to previously approved fees and work, are reviewed and approved in advance of commencement of such services by the Audit Committee at their regularly scheduled meetings throughout the year. Should a situation arise that requires approval between meetings, the Audit Committee has delegated authority to its Chairman to authorize such pre-approval and report on the same at the next regularly scheduled meeting.

REPORT OF THE AUDIT COMMITTEE

The Audit Committee of the Board of Directors is responsible for monitoring the integrity of the Company's consolidated financial statements, its system of internal controls and the independence and performance of its independent registered public accounting firm (the "independent auditors"). The Audit Committee is also responsible for the selection of the Company's independent auditors, and approves all professional services performed by the independent auditors. The Audit Committee is composed of three independent, non-employee directors and operates under a written charter adopted and approved by the Board of Directors. (The charter for the Audit Committee is available on the Company's website, and was included as *Appendix A* to the Proxy Statement for the 2004 Annual Meeting of Stockholders.) The members of the Audit Committee at December 31, 2006 were, John Bolger (Chairman), Kenneth Kannappan and Kenneth Smith. William Turner, the Company's current Chief Financial Officer, was a director from November 2002 to August 2006, when he resigned as a director to join the Company as an employee. In 2006, Mr. Turner served as the Company's Audit Committee Chairman until his resignation in August 2006. Mr. Bolger joined the Audit Committee as Chairman in December 2006. Each of the members of the Audit Committee is independent for purposes of the NASDAQ listing standards as they apply to audit committee members. The Board has determined that Mr. Bolger is an "audit committee financial expert" as defined by SEC rules.

Management is responsible for the financial reporting process, for establishing and maintaining adequate internal control over financial reporting, and for the preparation of consolidated financial statements in accordance with accounting principles generally accepted in the United States of America. The independent auditors have the responsibility to express an opinion on the financial statements and on the internal control over financial reporting based on an audit conducted in accordance with the standards of the Public Company Accounting Oversight Board (U.S.). Our responsibility is to monitor and review these processes, as well as to review the independent audit plan and the reports of the independent auditors. We rely on the information provided to us and on the representations made by management and the independent auditors.

In this context, we held ten meetings during 2006. The meetings were designed, among other things, to facilitate and encourage communication among the Audit Committee, management and the Company's independent auditors. PwC performed the audit of the Company's financial statement for 2006 as its independent auditors and has been selected by the Audit Committee to perform the audit for 2007. We discussed with the Company's management and PwC the overall scope of and plan for the 2006 audit before it was performed by PwC. We met with PwC to discuss the results of their examination.

We have reviewed and discussed with management and PwC the audited consolidated financial statements for the year ended December 31, 2006 contained in the Annual Report on Form 10-K for the year ended December 31, 2006. We also discussed with the independent auditors matters required to be discussed with audit committees under auditing standards generally accepted in the United States of America, including, among other things, matters related to the conduct of the audit of the Company's consolidated financial statements and the matters required to be discussed by Statement on Auditing Standards No. 61, as amended (Communication with Audit Committees).

The Company's independent auditors also provided to us the written disclosures and a letter required by Independence Standards Board Standard No. 1 (Independence Discussions with Audit Committees), and we discussed with the independent auditors their independence from the Company. When considering PwC's independence, we considered whether their provision of services to the Company beyond those rendered in connection with their audit and review of the Company's consolidated financial statements was compatible with maintaining their independence. We also reviewed and pre-approved, among other things, the fees paid to the independent auditors for audit and non-audit services.

Based on our review and these meetings, discussions and reports, and subject to the limitations on our role and responsibilities referred to above and in the Audit Committee Charter, we recommended to the Board of Directors that the Company's audited consolidated financial statements for the year ended December 31, 2006 be included in the Company's Annual Report on Form 10-K.

April 26, 2007

AUDIT COMMITTEE

John Bolger, Chairman
Kenneth Kannappan
Kenneth Smith

STOCKHOLDER PROPOSALS TO BE PRESENTED AT NEXT ANNUAL MEETING

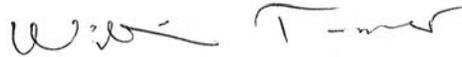
The Company has an advance notice provision under its bylaws for stockholder business to be presented at meetings of stockholders. Such provision states that in order for stockholder business to be properly brought before a meeting by a stockholder, such stockholder must have given timely notice thereof in writing to the Secretary of the Company. A stockholder proposal, to be timely, must be received at the Company's principal executive offices not less than 120 calendar days in advance of the one year anniversary of the date the Company's proxy statement was released to stockholders in connection with the previous year's Annual Meeting of Stockholders; except that (i) if no annual meeting was held in the previous year, (ii) if the date of the annual meeting has been changed by more than thirty calendar days from the date contemplated at the time of the previous year's proxy statement, or (iii) in the event of a special meeting, then notice must be received not later than the close of business on the tenth day following the day on which notice of the date of the meeting was mailed or public disclosure of the meeting date was made.

Proposals of stockholders intended to be presented at the next Annual Meeting of Stockholders of the Company (i) must be received by the Company at its offices no later than December 28, 2007, and (ii) must satisfy the conditions established by the Securities and Exchange Commission for stockholder proposals to be included in the Company's Proxy Statement for that meeting.

TRANSACTION OF OTHER BUSINESS

At the date of this Proxy Statement, the Board of Directors knows of no other business that will be conducted at the 2007 Annual Meeting of Stockholders other than as described in this Proxy Statement. If any other matter or matters are properly brought before the meeting or any adjournment thereof, it is the intention of the persons named in the accompanying form of Proxy to vote the Proxy on such matters in accordance with their best judgment.

By Order of the Board of Directors,

A handwritten signature in black ink, appearing to read "William Turner". The signature is written in a cursive style with a long horizontal stroke at the end.

William Turner, Secretary

April 26, 2007

APPENDIX ONE
AMENDMENT #1
TO MATTSON TECHNOLOGY, INC.
2005 EQUITY INCENTIVE PLAN

The Mattson Technology, Inc. 2005 Equity Incentive Plan is hereby amended as follows:

In Section 4.1 (“Maximum Number of Shares Issuable”), the maximum number of shares issuable shall be changed from 11,975,000 to 14,475,000, so that Section 4.1 shall now read:

“**4.1 Maximum Number of Shares Issuable.** Subject to adjustment as provided in Sections 4.2 and 4.3, the maximum aggregate number of shares of Stock that may be issued under the Initial Plan and the Plan shall be fourteen million four hundred seventy-five thousand (14,475,000) and shall consist of authorized but unissued or reacquired shares of Stock or any combination thereof.”

IN WITNESS WHEREOF, the undersigned Secretary of the Company certifies that the foregoing sets forth Amendment #1 to the 2005 Equity Incentive Plan effective as of June 4, 2007, the date of its approval by the stockholders of the Company.

/s/ William I. Turner

William I. Turner,
Secretary

PROXY
MATTSON TECHNOLOGY, INC.
47131 Bayside Drive, Fremont, California 94538

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

The undersigned hereby appoints David L. Dutton and William I. Turner (the "Proxies"), and each of them, each with the power to appoint his substitute, and hereby authorizes each of them to represent and vote all of the shares of common stock of Mattson Technology, Inc. (the "Company") held of record by the undersigned on April 13, 2007, at the Annual Meeting of Stockholders to be held on June 4, 2007 or any adjournment or postponement thereof, as hereinafter specified upon the proposals listed below and as more particularly described in the Proxy Statement of the Company dated April 26, 2007, receipt of which is hereby acknowledged, and in their discretion upon such other matters as may properly come before the meeting.

1. To elect the following directors as Class I directors of the Company to hold office for a three-year term and until their successors are elected and qualified.

FOR all nominees listed below **WITHHOLD AUTHORITY**
(except as written to the contrary below)

Kenneth Kannappan
John C. Bolger

To withhold authority to vote for any nominee, print that nominee's name in the space provided below:

2. To approve an increase in the number of shares reserved for issuance under the Company's 2005 Equity Incentive Plan by 2,500,000 shares.

FOR **AGAINST** **ABSTAIN**

3. To ratify the appointment of PricewaterhouseCoopers LLC as the Company's independent registered public accountants for the year ending December 31, 2007.

FOR **AGAINST** **ABSTAIN**

4. To transact such other business as may properly come before the meeting.

This Proxy when properly executed will be voted in the manner directed herein by the undersigned stockholder. If no direction is given, the Proxy will be voted FOR all nominees listed in Proposal 1, FOR Proposal 2 and FOR Proposal 3.

Please sign exactly as your name appears on your stock certificates. When shares are held by joint tenants, both should sign. When signing as an attorney, as executor, administrator, trustee or guardian, please give your full title. If a corporation, please sign in full corporate name, by President or other authorized officer. If a partnership, please sign in partnership name by authorized person.

Dated: _____ 2007

Signature

Signature if held jointly

WHETHER OR NOT YOU PLAN TO ATTEND THE MEETING IN PERSON, YOU ARE URGED TO DATE, SIGN AND PROMPTLY RETURN THE ENCLOSED PROXY IN THE ENVELOPE PROVIDED TO ASSURE THAT YOUR SHARES ARE REPRESENTED AT THE MEETING. IF YOU ATTEND THE MEETING, YOU MAY VOTE IN PERSON IF YOU WISH TO DO SO EVEN THOUGH YOU HAVE SENT IN YOUR PROXY.