

LAM RESEARCH CORP  
Form 10-K  
August 23, 2010  
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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**  
**WASHINGTON, D.C. 20549**

**FORM 10-K**

(Mark One)

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934**

**For the fiscal year ended June 27, 2010**

**OR**

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934**

**For the transition period from \_\_\_\_\_ to \_\_\_\_\_.**

**Commission file number: 0-12933**

**LAM RESEARCH CORPORATION**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of

**94-2634797**  
(I.R.S. Employer

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incorporation or organization)

Identification No.)

**4650 Cushing Parkway**

**Fremont, California**

(Address of principal executive offices)

**94538**

(Zip code)

Registrant's telephone number, including area code: **(510) 572-0200**

Securities registered pursuant to Section 12(b) of the Act:

Title of class	Name of exchange on which registered
<b>Common Stock, Par Value \$0.001 Per Share</b>	<b>NASDAQ Global Select Market</b>

Securities registered pursuant to Section 12(g) of the Act:

**None**

(Title of class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

The aggregate market value of the Registrant's Common Stock, \$0.001 par value, held by non-affiliates of the Registrant, as of December 27, 2009, the last business day of the most recently completed second fiscal quarter with respect to the fiscal year covered by this Form 10-K, was \$3,744,253,386. Common Stock held by each officer and director and by each person who owns 5% or more of the outstanding Common Stock has been excluded from this computation in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination of such status for other purposes.

As of August 13, 2010, the Registrant had 124,172,201 outstanding shares of Common Stock.

## Documents Incorporated by Reference

Parts of the Registrant's Proxy Statement for the Annual Meeting of Stockholders expected to be held on or about November 4, 2010 are incorporated by reference into Part III of this Form 10-K. (However, the Reports of the Audit Committee and Compensation Committee are expressly not incorporated by reference herein.)



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**2010 ANNUAL REPORT ON FORM 10-K**  
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**PART I**

**CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS**

*With the exception of historical facts, the statements contained in this discussion are forward-looking statements, which are subject to the safe harbor provisions created by the Private Securities Litigation Reform Act of 1995. Certain, but not all, of the forward-looking statements in this report are specifically identified as forward-looking, by use of phrases and words such as we believe, we anticipate, we expect, may, should, could, and other future-oriented terms. The identification of certain statements as forward-looking is not intended to mean that other statements not specifically identified are not forward-looking. Forward-looking statements include, but are not limited to, statements that relate to our future revenue, shipments, cost and margins, product development, demand, acceptance and market share, competitiveness, market opportunities, levels of research and development (R&D), the success of our marketing, sales and service efforts, outsourced activities and operating expenses, anticipated manufacturing, customer and technical requirements, the ongoing viability of the solutions that we offer and our customers' success, tax expenses, our management's plans and objectives for our current and future operations and business focus, the levels of customer spending or R&D activities, general economic conditions, the sufficiency of financial resources to support future operations, and capital expenditures. Such statements are based on current expectations and are subject to risks, uncertainties, and changes in condition, significance, value and effect, including without limitation those discussed below under the heading Risk Factors within Item 1A and elsewhere in this report and other documents we file from time to time with the Securities and Exchange Commission (the SEC), such as our quarterly reports on Form 10-Q and our current reports on Form 8-K. Such risks, uncertainties and changes in condition, significance, value and effect could cause our actual results to differ materially from those expressed in this report and in ways we cannot readily foresee. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof and are based on information currently and reasonably known to us. We do not undertake any obligation to release the results of any revisions to these forward-looking statements, which may be made to reflect events or circumstances that occur after the date of this report or to reflect the occurrence or effect of anticipated or unanticipated events.*

**Item 1. Business**

Incorporated in 1980, Lam Research Corporation (Lam Research, Lam, we, or the Company) is headquartered in Fremont, California, and maintains a network of facilities throughout North America, Asia, and Europe in order to meet the needs of its global customer base.

Additional information about Lam Research is available on our website at <http://www.lamresearch.com>.

Our Annual Report on Form 10-K, Quarterly Reports on Forms 10-Q, Current Reports on Forms 8-K, and any amendments to those reports are available on our website as soon as reasonably practical after we file them with or furnish them to the Securities and Exchange Commission (SEC) and are also available online at the SEC's website at <http://www.sec.gov>.

The Lam Research logo, Lam Research, and all product and service names used in this report are either registered trademarks or trademarks of Lam Research Corporation in the United States and/or other countries. All other marks mentioned herein are the property of their respective holders.

All references to fiscal years apply to our fiscal years, which ended June 27, 2010, June 28, 2009, and June 29, 2008.

Lam Research is a leading supplier of wafer fabrication equipment and services to the worldwide semiconductor industry. For thirty years, our wafer fabrication equipment, services, and extensive technical expertise have contributed to advancing semiconductor manufacturing and producing some of the world's most advanced semiconductor devices. We are recognized as the global market share leader in plasma etch and maintain the largest installed base of single-wafer wet clean modules in the world.

We design, manufacture, market, refurbish, and service semiconductor processing equipment used in the fabrication of integrated circuits. Semiconductor wafers are subjected to a complex series of process and

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preparation steps that result in the simultaneous creation of many individual integrated circuits. We leverage our expertise in the areas of etch and single-wafer clean to develop processing solutions that typically benefit our customers through lower defect rates, enhanced yields, faster processing time, and/or reduced cost. Many of the technical advances that we introduce in our newest products are also available as upgrades to our installed base of equipment; this is a benefit that can provide customers with a cost-effective strategy for extending the performance and capabilities of their existing wafer fabrication lines.

Our innovative etch and clean technologies enable customers to build some of the world's highest-performing integrated circuits. Our etch systems shape the microscopic conductive and dielectric layers into circuits that define a chip's final use and function. Our broad portfolio of single-wafer clean technologies allows our customers to implement customized yield-enhancing solutions. With each new technology node, additional requirements and challenges drive the need for advanced manufacturing solutions. We strive to consistently deliver these advanced capabilities with cost-effective production performance. Lam Research understands the close relationship between customer trust and the timely delivery of new solutions that leads to shared success with our customers.

Our Customer Support Business Group (CSBG) provides products and services to maximize installed equipment performance and operational efficiency. We offer a broad range of services to deliver value throughout the lifecycle of our equipment, including customer service, spares, upgrades, and refurbishment of our etch and clean products. While most semiconductor device manufacturers have transitioned to 300 mm wafer technology, there are still many who utilize 200 mm technology, requiring prior-generation equipment. To address this market and to meet customers' needs for high-performance, low-risk equipment, our Reliant Systems Business offers a suite of new and refurbished Lam legacy equipment for etch and spin clean.

### **Etch Process**

Etch processes, which are repeated numerous times during the wafer fabrication cycle, are required to manufacture every type of semiconductor device produced today. Our etch products selectively remove portions of various films from the wafer in the creation of semiconductor devices. These products use various plasma-based technologies to create critical device features at current and future technology nodes. Plasma consists of charged and neutral particles that react with exposed portions of the wafer surface to remove dielectric or conductive materials and produce the finely delineated features and patterns of an integrated circuit.

### ***Dielectric Etch***

Dielectric etch often requires etching multi-layer film stacks. Smaller node sizes increase the complexity of the structures being etched, and repeat on-wafer performance remains critical. In addition to the challenges introduced by new materials and scaling, device manufacturers' focus on reducing overall cost per wafer has placed an increased emphasis on the ability to etch multiple films in the same chamber (*in situ*).

### ***DFC Technology***

Production-proven in high-volume manufacturing for the past 15 years, our patented Dual Frequency Confined technology has been extended to incorporate multi-frequency power with physically confined plasma. The application of power at different frequencies provides enhanced process flexibility and allows different materials to be etched in the same chamber. Physical confinement of the plasma to an area directly above the wafer minimizes chemical interaction with the chamber walls, eliminating potential polymer build-up that could lead to defects on the wafer. Confinement also enables our proprietary *in situ* Waferless Autoclean (WAC) technology to clean chamber components after each wafer has been etched. Used together, multi-frequency and WAC technologies provide a consistent process environment for every wafer, preventing process drift and ensuring repeatable process results wafer-to-wafer and chamber-to-chamber.

2300® Exelan® Flex , 2300® Exelan® Flex45 , 2300® Flex D Series Dielectric Etch Systems

Our 2300 Flex dielectric etch product family represents a continuous evolution of the productivity and performance benefits of DFC technology. The 2300 Flex family allows a single chamber design to meet the requirements of a wide range of applications at multiple nodes. Advances in system design, such as multiple

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frequencies, higher power capabilities and tunable wafer temperature, meet the more demanding uniformity and profile requirements for applications at the 32 nm node and beyond.

### ***Conductor Etch***

As the semiconductor industry continues to shrink critical feature sizes and improve device performance, a variety of new etch challenges have emerged. For conductor etch, these challenges include processing smaller features, new materials, and new transistor structures on the wafer. Due to decreasing feature sizes, the etch process can now require atomic-level control across a 300 mm wafer. The incorporation of new metal gates and high-k dielectric materials in the device stack requires advanced multi-film etching capability. Furthermore, the adoption of double patterning techniques to address lithography challenges at the 45 nm node and beyond is driving the etch process to define the feature on the wafer as well as to transfer the pattern into the film. All of these challenges require today's conductor etch systems to provide advanced capabilities, while still providing high productivity.

### ***TCP Technology***

Introduced in 1992, our Transformer Coupled Plasma technology continues to provide leading-edge capability for advanced conductor etch applications at the 32 nm node and beyond. By efficiently coupling radio frequency ( RF ) power into plasma at low pressures, the TCP technology provides capability to etch nanoscale features into silicon and metal films. The advanced TCP source design ensures a uniform, high-density plasma across the wafer, without requiring magnetic enhancements that could cause device damage. With a wide process window over a range of power, chemistry, and pressure combinations, TCP technology provides the flexibility required to perform multiple etch steps in the same chamber.

*2300® Versys® Kiyō®, 2300® Versys® Kiyō45 , 2300® Kiyō® C Series, 2300® Versys® Metal, 2300® Versys® Metal45 , 2300® Versys® Metal L Conductor Etch Systems*

Now in its third generation, the 2300 Kiyō product family combines iterative advances in technology to provide critical dimension ( CD ) uniformity and productivity for a wide range of conductor etch applications. The 2300 Versys Metal product family leverages Lam's proprietary TCP technology to provide a flexible platform for back-end-of-line metal etch processes. Our etch products perform production-proven *in situ* etches of complex features. In addition, proprietary pre-coat and post-etch chamber clean techniques provide the same environment for superior repeatability, as well as high uptime and yield wafer after wafer.

### ***MEMS and Deep Silicon Etch***

Deep silicon etch is an enabling process for several emerging technologies, including micro-electromechanical systems ( MEMS ) devices, CMOS image sensors, and power devices. Many of these technologies are increasingly being used in consumer applications, such as ink jet printer heads, accelerometers, and inertial sensors. This is driving a number of deep silicon etch applications to transition into high-volume manufacturing, which requires the high levels of cost-effective production typically seen in commodity semiconductor memory devices. To achieve high yield in mass production, the deep silicon etch process requires wafer-to-wafer repeatability.

*TCP® 9400DSiE Deep Silicon Etch System*

The TCP 9400DSiE system is based on our production-proven TCP 9400 silicon etch series. The system's patented high-density TCP plasma source provides a configuration to meet the challenges of silicon deep reactive ion etch, offering broad process capability and flexibility for a wide range of MEMS, advanced packaging, and power semiconductor applications. Incorporation of our proprietary *in situ* chamber cleaning technology provides etch rate stability.

### ***Three-Dimensional Integrated Circuit Etch***

The semiconductor industry is developing advanced, three-dimensional integrated circuits ( 3-D ICs ) using through-silicon vias ( TSVs ) to provide interconnect capability for die-to-die and wafer-to-wafer stacking. In

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addition to a reduced form factor, 3-D ICs can enhance device performance through increased speed and decreased power consumption. Manufacturers are currently considering a wide variety of 3-D integration schemes that present an equally broad range of TSV etch requirements. Plasma etch technology, which has been used extensively for deep silicon etching in memory devices and MEMS production, is well suited for TSV creation.

### *2300® Syndion® Through-Silicon Via Etch System*

The 2300 Syndion etch system is based on our patented TCP technology and the production-proven 2300 Versys Kiyo conductor etch system. The Syndion system can etch multiple film stacks in the same chamber, including silicon, dielectric, and conducting materials, thereby addressing multiple TSV etch requirements.

## **Clean Process**

The manufacture of semiconductor devices involves a series of processes such as etch, deposition, and implantation, which leave particles and residues on the surface of the wafer. The wafer must generally be cleaned after these steps to remove particles and residues that could adversely impact the processes that immediately follow them and degrade device performance. Common wafer cleaning steps include post-etch and post-strip cleans and pre-diffusion and pre-deposition cleans, among others.

Specific challenges at the 45 nm node and beyond include efficient particle and residue removal while minimizing substrate material loss, protecting structures with fragile new materials and smaller feature sizes, and efficient drying. In addition, management of potential defect sources at the wafer edge becomes increasingly challenging as new materials are introduced in the process flow.

### *Single-Wafer Wet Clean*

As device geometries shrink and new materials are introduced, device flows become more complex, and the number of wafer cleaning steps increases. The need to have better control of the cleaning process, to increase overall clean efficiency, and to clean fragile structures without causing damage are reasons why chipmakers are turning to single-wafer wet clean processing technology for next-generation devices.

Over the past decade, a transition from batch to single-wafer processing has occurred for back-end-of-line wet clean applications and a similar migration is now taking place for front-end-of-line wet clean applications as the need for higher particle removal efficiency without device structure damage becomes more critical. Single-wafer wet processing is particularly advantageous for those applications where improved defect performance (removing particles without damaging the wafer pattern) or enhanced selectivity and CD control can improve yield.

### *Spin Clean Products: SP Series, Da Vinci®, DV-Prime*

Introduced over 20 years ago, SEZ® spin technology for cleaning and removing films has assisted the industry transition from batch to single-wafer wet processing. This proven technology provides the productivity and flexibility needed for both high-volume manufacturing and leading-edge development across multiple technology nodes and for all device types. By offering advanced dilute chemistry and solvent solutions in our systems, our spin wet clean systems address certain defectivity and material integrity requirements.

### *Linear Clean Product: 2300® Serene®*

To meet the challenges of smaller critical dimensions, increasing aspect ratios, and new materials integration, our 2300 Serene wet clean system is targeted at applications requiring high-selectivity residue removal without damaging sensitive device structures. The system's C3 (Confined Chemical Cleaning) technology combines linear wafer motion with chemically-driven single-wafer cleaning to remove residues with chemical exposure times as short as a few seconds. The cleaning exposure time is optimized for efficient removal of the target materials, while limiting the impact on critical materials. This technology addresses applications that require high-selectivity cleaning, such as high-k metal gate post-etch clean.

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### ***Plasma-Based Bevel Clean***

Semiconductor manufacturers are paying increasing attention to the wafer edge as a source of yield limiting defects. New materials like porous low-k and organic films often do not adhere as well as traditional silicon or polymer-based films and have the potential to be significant defect sources. By including cleaning steps that target the bevel region, the number of good die at the wafer's edge can be increased to maximize yield.

#### *2300® Coronus® Plasma Bevel Clean System*

The 2300 Coronus plasma bevel clean system incorporates plasma technology to remove yield limiting defect sources. The system combines the ability of plasma to selectively remove a wide variety of materials with a proprietary confinement technology that protects the die area. Incorporating our Dynamic Alignment technology on the production-proven 2300 platform, the Coronus system provides highly accurate wafer placement for repeatable process results and superior encroachment control and is designed to remove a wide range of material types, in multiple applications, throughout the manufacturing process flow.

### **Research and Development**

The market for semiconductor capital equipment is characterized by rapid technological change and product innovation. Our ability to achieve and maintain our competitive advantage depends in part on our continued and timely development of new products and enhancements to existing products. Accordingly, we devote a significant portion of our personnel and financial resources to R&D programs and seek to maintain close and responsive relationships with our customers and suppliers.

Our R&D expenses during fiscal years 2010, 2009, and 2008 were \$320.9 million, \$288.3 million, and \$323.8 million, respectively. The majority of R&D spending over the past three years has been targeted at etch and other plasma-based technologies, single-wafer clean, and other semiconductor manufacturing products. We believe current challenges for customers at various points in the semiconductor manufacturing process present opportunities for us.

We expect to continue to make substantial investments in R&D to meet our customers' product needs, support our growth strategy, and enhance our competitive position.

### **Marketing, Sales, and Service**

Our marketing, sales, and service efforts are focused on building long-term relationships with our customers and targeting product and service solutions designed to meet their needs. These efforts are supported by a team of product marketing and sales professionals as well as equipment and process engineers who work closely with individual customers to develop solutions for their wafer processing needs. We maintain ongoing service relationships with our customers and have an extensive network of service engineers in place throughout the United States, Europe, Taiwan, Korea, Japan, and Asia Pacific. We believe that comprehensive support programs and close working relationships with customers are essential to maintaining high customer satisfaction and our competitiveness in the marketplace.

We provide standard warranties for our systems that generally run for a period of 12 months from system acceptance. The warranty provides that systems shall be free from defects in material and workmanship and conform to agreed-upon specifications. The warranty is limited to repair of the defect or replacement with new or like-new equivalent goods and is valid when the buyer provides prompt notification within the warranty period of the claimed defect or non-conformity and also makes the items available for inspection and repair. We also offer extended warranty packages to our customers to purchase as desired.

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A significant portion of our sales and operations occur outside the United States and, therefore, may be subject to certain risks, including but not limited to tariffs and other barriers, difficulties in staffing and managing non-U.S. operations, adverse tax consequences, foreign currency exchange rate fluctuations, changes in currency controls, compliance with U.S. and international laws and regulations, including U.S. export restrictions, and economic and political conditions. Any of these factors may have a material adverse effect on our business, financial position, and results of operations and cash flows. Revenue by region was as follows:

	June 27, 2010	Year Ended June 28, 2009 (in thousands)	June 29, 2008
Revenue:			
United States	\$ 186,036	\$ 171,359	\$ 417,807
Europe	133,685	121,178	235,191
Japan	318,641	234,070	455,322
Korea	539,312	239,911	554,924
Taiwan	703,854	208,053	502,683
Asia Pacific	252,248	141,375	308,984
Total revenue	\$ 2,133,776	\$ 1,115,946	\$ 2,474,911

**Customers**

Our customers include many of the world's leading semiconductor manufacturers. Customers continue to establish joint ventures, alliances and licensing arrangements which have the potential to positively or negatively impact our competitive position and market opportunities. In fiscal year 2010, revenues from Samsung Electronics Company, Ltd., Taiwan Semiconductor Manufacturing Company, Ltd., and Toshiba Corporation accounted for approximately 24%, 15%, and 11%, respectively, of total revenues. In fiscal year 2009, revenues from Samsung Electronics Company, Ltd. and Toshiba Corporation accounted for approximately 19% and 11%, respectively, of total revenues. In fiscal year 2008, revenues from Samsung Electronics Company, Ltd. and Toshiba Corporation accounted for approximately 19% and 13%, respectively, of total revenues.

A material reduction in orders from our customers in the semiconductor industry could adversely affect our results of operations and projected financial condition. Our business depends upon the expenditures of semiconductor manufacturers. Semiconductor manufacturers' businesses, in turn, depend on many factors, including their economic capability, the current and anticipated market demand for integrated circuits and the availability of equipment capacity to support that demand.

**Backlog**

In general, we schedule production of our systems based upon our customers' delivery requirements. In order for a system to be included in our backlog, the following conditions must be met: 1) a written customer request that has been accepted, 2) agreement on prices and product specifications, and 3) scheduled shipment within the next 12 months. The spares and services backlog includes customer orders where written customer requests have been accepted and the delivery of products or provision of services is anticipated within the next 12 months. Where specific spare parts and customer service purchase contracts do not contain discrete delivery dates, we use volume estimates at the contract price and over the contract period, not exceeding 12 months, in calculating backlog amounts. Our policy is to revise our backlog for order cancellations and to make adjustments to reflect, among other things, changes in spares volume estimates and customer delivery date changes. At June 27, 2010 and June 28, 2009, our backlog was approximately \$667 million and \$391 million, respectively. Generally, orders for our products and services are subject to cancellation by our customers with limited penalties. Because some orders are received and shipped in the same quarter and because customers may change delivery dates and cancel orders, our backlog at any particular date is not necessarily indicative of business volumes or actual revenue levels for succeeding periods.

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### **Manufacturing**

Our manufacturing operations consist mainly of assembling and testing components, sub-assemblies, and modules that are then integrated into finished systems prior to shipment to or at the location of our customers. Most of the assembly and testing of our products is conducted in cleanroom environments.

We have agreements with third parties to outsource certain aspects of our manufacturing, production warehousing, and logistics functions. We believe that these outsourcing contracts provide us more flexibility to scale our operations up or down in a timely and cost effective manner, enabling us to respond to the cyclical nature of our business. We believe that we have selected reputable providers and have secured their performance on terms documented in written contracts. However, it is possible that one or more of these providers could fail to perform as we expect, and such failure could have an adverse impact on our business and have a negative effect on our operating results and financial condition. Overall, we believe we have effective mechanisms to manage risks associated with our outsourcing relationships. Refer to Note 13 of our Consolidated Financial Statements, included in Item 15 of this report, for further information concerning our outsourcing commitments.

Certain components and sub-assemblies that we include in our products may only be obtained from a single supplier. We believe that, in many cases, we could obtain and qualify alternative sources to supply these products. Nevertheless, any prolonged inability to obtain these components could have an adverse effect on our operating results and could unfavorably impact our customer relationships.

### **Environmental Matters**

We are subject to a variety of governmental regulations related to the management of hazardous materials that we use in our business operations. We are currently not aware of any pending notices of violation, fines, lawsuits, or investigations arising from environmental matters that would have a material effect on our business. We believe that we are generally in compliance with these regulations and that we have obtained (or will obtain or are otherwise addressing) all necessary environmental permits to conduct our business. Nevertheless, the failure to comply with present or future regulations could result in fines being imposed on us, require us to suspend production or cease operations or cause our customers to not accept our products. These regulations could require us to alter our current operations, to acquire significant additional equipment, or to incur substantial other expenses to comply with environmental regulations. Our failure to control the use, sale, transport or disposal of hazardous substances could subject us to future liabilities.

### **Employees**

As of August 13, 2010, we had approximately 3,232 regular employees. Although we have employment-related agreements with a number of key employees, these agreements do not guarantee continued service. Each of our employees is required to comply with our policies relating to maintaining the confidentiality of our non-public information.

In the semiconductor and semiconductor equipment industries, competition for highly skilled employees is intense. Our future success depends, to a significant extent, upon our continued ability to attract and retain qualified employees particularly in the R&D and customer support functions.

### **Competition**

The semiconductor capital equipment industry is characterized by rapid change and is highly competitive throughout the world. To compete effectively, we invest significant financial resources to continue to strengthen and enhance our product and services portfolio and to maintain customer service and support locations globally. Semiconductor manufacturers evaluate capital equipment suppliers in many areas, including, but not limited to, process performance, productivity, customer support, defect control, and overall cost of ownership, which can be affected by many factors such as equipment design, reliability, software advancements, etc. Our ability to succeed in the marketplace depends upon our ability to maintain existing products and introduce product enhancements and new products that meet customer requirements on a timely basis. In addition, semiconductor manufacturers must make a substantial investment to qualify and integrate new capital equipment into

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semiconductor production lines. As a result, once a semiconductor manufacturer has selected a particular supplier's equipment and qualified it for production, the manufacturer generally maintains that selection for that specific production application and technology node as long as the supplier's products demonstrate performance to specification in the installed base. Accordingly, we may experience difficulty in selling to a given customer if that customer has qualified a competitor's equipment. We must also continue to meet the expectations of our installed base of customers through the delivery of high-quality and cost-efficient spare parts in the presence of third-party spare parts provider competition.

We face significant competition with all of our products and services. Our primary competitors in the etch market are Tokyo Electron, Ltd. and Applied Materials, Inc. Our primary competitor in the single-wafer wet clean market is Dainippon Screen Manufacturing Co. Ltd.

Certain of our existing and potential competitors have substantially greater financial resources and larger engineering, manufacturing, marketing, and customer service and support organizations than we do. In addition, we face competition from a number of emerging companies in the industry. We expect our competitors to continue to improve the design and performance of their current products and processes and to introduce new products and processes with enhanced price/performance characteristics. If our competitors make acquisitions or enter into strategic relationships with leading semiconductor manufacturers, or other entities, covering products similar to those we sell, our ability to sell our products to those customers could be adversely affected. There can be no assurance that we will continue to compete successfully in the future.

**Patents and Licenses**

Our policy is to seek patents on inventions relating to new or enhanced products and processes developed as part of our ongoing research, engineering, manufacturing, and support activities. We currently hold a number of United States and foreign patents covering various aspects of our products and processes. We believe that the duration of our patents generally exceeds the useful life of the technologies and processes disclosed and claimed in them. Our patents, which cover material aspects of our past and present core products, have current durations ranging from approximately one to twenty years. We believe that, although the patents we own and may obtain in the future will be of value, they alone will not determine our success. Our success depends principally upon our engineering, marketing, support, and delivery skills. However, in the absence of patent protection, we may be vulnerable to competitors who attempt to imitate our products, manufacturing techniques, and processes. In addition, other companies and inventors may receive patents that contain claims applicable or similar to our products and processes. The sale of products covered by patents of others could require licenses that may not be available on terms acceptable to us, or at all. For further discussion of legal matters, see Item 3, Legal Proceedings, of this report.

**EXECUTIVE OFFICERS OF THE COMPANY**

As of August 20, 2010, the executive officers of Lam Research were as follows:

<b>Name</b>	<b>Age</b>	<b>Title</b>
Stephen G. Newberry	56	President and Chief Executive Officer
Martin B. Anstice	43	Executive Vice President and Chief Operating Officer
Ernest E. Maddock	52	Senior Vice President, Chief Financial Officer and Chief Accounting Officer
Jeffrey Marks	52	Vice President and General Manager, Clean Business
Richard A. Gottscho	58	Group Vice President and General Manager, Etch Business
Thomas J. Bondur	42	Vice President and General Manager, Sales and Marketing
Sarah A. O Dowd	60	Group Vice President, Human Resources and Chief Legal Officer

Stephen G. Newberry was appointed President and Chief Executive Officer of Lam Research in June 2005. He joined Lam Research in August 1997 as Executive Vice President and Chief Operating Officer and was promoted to the position of President and Chief Operating Officer in July 1998. Mr. Newberry currently serves as a director of Lam Research, Amkor Technology, and Semiconductor Equipment and Materials International (SEMI), the industry's trade association. He also serves as a member of the Haas Advisory Board, Haas School of Business, University of California at Berkeley and as a member of the Dean's Advisory Council, University of

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California at Davis Graduate School of Management. Prior to joining Lam Research, Mr. Newberry was Group Vice President of Global Operations and Planning at Applied Materials, Inc. Mr. Newberry served five years in naval aviation prior to joining Applied Materials. He is a graduate of the U.S. Naval Academy and the Harvard Graduate School of Business, Program for Management Development.

Martin B. Anstice joined Lam Research in April 2001 as Senior Director, Operations Controller, was promoted to the position of Managing Director and Corporate Controller in May 2002, and was promoted to Group Vice President, Chief Financial Officer, and Chief Accounting Officer in June 2004, was named Senior Vice President, Chief Financial Officer and Chief Accounting Officer in March 2007, and was promoted to Executive Vice President, Chief Operating Officer, in September 2008. Mr. Anstice began his career at Raychem Corporation where, during his 13-year tenure, he held numerous finance roles of increasing responsibility in Europe and North America. Subsequent to Tyco International's acquisition of Raychem in 1999, he assumed responsibilities supporting mergers and acquisition activities of Tyco Electronics. Mr. Anstice is an associate member of the Chartered Institute of Management Accountants in the United Kingdom.

Ernest E. Maddock was appointed Senior Vice President and Chief Financial Officer of Lam Research in September 2008. Additionally, Mr. Maddock oversees Information Technology and heads Silfex Incorporated (formerly Bullen Semiconductor Corporation), a division of Lam Research. From October 2003 through September 2008, Mr. Maddock held the position of Senior Vice President of Global Operations at Lam Research, overseeing Information Technology, Global Supply Chain, Production Operations, Corporate Quality, Global Security, and Global Real Estate & Facilities. Mr. Maddock also held the position of Vice President of the Customer Support Business Group (CSBG) with the Company. Mr. Maddock joined the Company in November 1997. Prior to his employment with Lam Research, Mr. Maddock was Managing Director, Global Logistics and Repair Services Operations, and Chief Financial Officer, Software Products Division, of NCR Corporation. He has also held a variety of executive roles in finance and operations in several industries ranging from commercial real estate to telecommunications.

Jeffrey Marks has spent the past 20 years in the semiconductor industry, focusing on advanced process equipment development and business growth. He joined Lam Research Corporation in 1999, and has been the Vice President and General Manager of the Clean Product Group since March 2007. He is responsible for the Company's spin, linear and bevel clean products. Before assuming responsibility for wet and plasma-based bevel clean, Dr. Marks managed the dielectric etch business at Lam Research. He worked for Applied Materials from 1988 until 1999 and was responsible for several key technology and business activities, including flat panel etch, CMP, dielectric etch, and dielectric CVD. He received his Ph.D. in chemistry from Stanford University and his B.S. degree in chemistry from the University of California, San Diego. He holds numerous patents and has authored several technical publications in the areas of semiconductor processing and thin-film applications.

Richard A. Gottscho, Group Vice President and General Manager, Etch Businesses since March 2007, joined the Company in January 1996 and has served at various Director and Vice President levels in support of etch products, CVD products, and corporate research. Prior to joining Lam Research, Dr. Gottscho was a member of Bell Laboratories for 15 years where he started his career working in plasma processing. During his tenure at Bell, he headed research departments in electronics materials, electronics packaging, and flat panel displays. Dr. Gottscho is the author of numerous papers, patents, and lectures in plasma processing and process control. He is a recipient of the American Vacuum Society's Peter Mark Memorial Award and is a fellow of the American Physical and American Vacuum Societies, has served on numerous editorial boards of refereed technical publications, program committees for major conferences in plasma science and engineering, and was vice-chair of a National Research Council study on plasma science in the 1980s. Dr. Gottscho earned Ph.D. and B.S. degrees in physical chemistry from the Massachusetts Institute of Technology and the Pennsylvania State University, respectively.

Thomas J. Bondur, Vice President and General Manager, Sales and Marketing, since April 2009 and previously Vice President, Global Field Operations since March 2007, joined Lam Research in August 2001 and has served in various roles in business development and field operations in Europe and the United States. Prior to joining Lam Research, Mr. Bondur spent eight years in the semiconductor industry with Applied Materials in various roles in Santa Clara and France including Sales, Business Management and Process Engineering. Mr. Bondur holds a degree in Business from the State University of New York.

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Sarah A. O Dowd joined Lam Research in September 2008 as Group Vice President and Chief Legal Officer, and was appointed Group Vice President, Human Resources and Chief Legal Officer in April 2009. Prior to joining Lam Research, Ms. O Dowd served as Vice President and General Counsel for FibroGen, Inc. from February 2007 until September 2008. Until February 2007, Ms. O Dowd was a shareholder in the law firm of Heller Ehrman LLP for more than twenty years.

### **Item 1A. Risk Factors**

In addition to the other information in this 2010 Form 10-K, the following risk factors should be carefully considered in evaluating the Company and its business because such factors may significantly impact our business, operating results, and financial condition. As a result of these risk factors, as well as other risks discussed in our other SEC filings, our actual results could differ materially from those projected in any forward-looking statements. No priority or significance is intended, nor should be attached, to the order in which the risk factors appear.

#### ***The Semiconductor Industry is Subject to Major Fluctuations and, as a Result, We Face Risks Related to Our Strategic Resource Allocation Decisions***

The business cycle in the semiconductor equipment industry has historically been characterized by frequent periods of rapid change in demand that challenge our management to adjust spending and other resources allocated to operating activities. During periods of rapid growth or decline in demand for our products and services, we face significant challenges in maintaining adequate financial and business controls, management processes, information systems, procedures for training, managing, and appropriately sizing our supply chain, our work force, and other components of our business on a timely basis.

If we do not adequately meet these challenges during periods of demand decline, our gross margins and earnings may be impaired. In late 2008 and throughout 2009, the semiconductor industry experienced a general decline in demand, leading to a steep decline in demand for our products and services. In response to that industry demand decline and in an effort to minimize the disruptive effects of the deteriorating economic conditions on our business operating results, we made difficult resource allocation decisions, including layoffs and restructurings.

During fiscal year 2010 we transitioned into what we believe to be a period of demand growth, although the duration and intensity of the growth period is uncertain. This is fueled in large part by increased investment by customers who, during the downturn, reduced or eliminated their spending on our products. We continuously reassess our strategic resource allocation choices in response to the changing business environment. If we do not adequately adapt to the changing business environment, we may lack the infrastructure and resources to scale up our business to meet customer expectations and compete successfully during this period of growth; or, we may expand our capacity too rapidly and/or beyond what is appropriate for the actual demand environment.

Especially during transitional periods, resource allocation decisions can have a significant impact on our future performance, particularly if we have not accurately anticipated industry changes. Our success will depend, to a significant extent, on the ability of our executive officers and other members of our senior management to identify and respond to these challenges effectively.

#### ***Future Decline in the Semiconductor Equipment Industry, and the Overall World Economic Conditions on Which it is Significantly Dependent, Could Have a Material Adverse Impact on Our Results of Operations and Financial Condition***

Our business depends on the capital equipment expenditures of semiconductor manufacturers, which in turn depend on the current and anticipated market demand for integrated circuits. The semiconductor industry is cyclical in nature and historically experiences periodic downturns. Global economic and business conditions, which are often unpredictable, have historically impacted customer demand for our products and normal commercial relationships with our customers, suppliers, and creditors. Additionally, in times of economic uncertainty, some of our customers' budgets for our products, or their ability to access credit to purchase them, could be adversely affected. This would limit their ability to purchase our products and services. As a result, economic downturns can cause material adverse changes to our results of operations and financial condition including, but not limited to:

- a decline in demand for our products;
- an increase in reserves on accounts receivable due to our customers' inability to pay us;



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- an increase in reserves on inventory balances due to excess or obsolete inventory as a result of our inability to sell such inventory;
- valuation allowances on deferred tax assets;
- restructuring charges;
- asset impairments including the potential impairment of goodwill and other intangible assets;
- a decline in the value of our investments;
- exposure to claims from our suppliers for payment on inventory that is ordered in anticipation of customer purchases that do not come to fruition;
- a decline in value of certain facilities we lease to less than our residual value guarantee with the lessor; and
- challenges maintaining reliable and uninterrupted sources of supply.

Fluctuating levels of investment by semiconductor manufacturers may materially affect our aggregate shipments, revenues and operating results. Where appropriate, we will attempt to respond to these fluctuations with cost management programs aimed at aligning our expenditures with anticipated revenue streams, which sometimes result in restructuring charges. Even during periods of reduced revenues, we must continue to invest in research and development and maintain extensive ongoing worldwide customer service and support capabilities to remain competitive, which may temporarily harm our profitability and other financial results.

### ***Our Quarterly Revenues and Operating Results Are Unpredictable***

Our revenues and operating results may fluctuate significantly from quarter to quarter due to a number of factors, not all of which are in our control. We manage our expense levels based in part on our expectations of future revenues. Because our operating expenses are based in part on anticipated future revenues, and a certain amount of those expenses are relatively fixed, a change in the timing of recognition of revenue and/or the level of gross profit from a small number of transactions can unfavorably affect operating results in a particular quarter. Factors that may cause our financial results to fluctuate unpredictably include, but are not limited to:

- economic conditions in the electronics and semiconductor industries in general and specifically the equipment industry;
- the size and timing of orders from customers;
- procurement shortages;
- the failure of our suppliers or outsource providers to perform their obligations in a manner consistent with our expectations;
- manufacturing difficulties;

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- customer cancellations or delays in shipments, installations, and/or customer acceptances;
- the extent that customers continue to purchase and use our products and services in their business;
- changes in average selling prices, customer mix, and product mix;
- our ability in a timely manner to develop, introduce and market new, enhanced, and competitive products;
- our competitors' introduction of new products;
- legal or technical challenges to our products and technology;
- transportation, communication, demand, information technology or supply disruptions based on factors outside our control such as acts of God, wars, terrorist activities, and natural disasters;
- natural, physical, logistical or other events or disruptions affecting our principal facilities (including labor disruptions, earthquakes, and power failures)

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- legal, tax, accounting, or regulatory changes (including but not limited to change in import/export regulations) or changes in the interpretation or enforcement of existing requirements;
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