

KULICKE & SOFFA INDUSTRIES INC

Form 424B3

February 25, 2004

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PROSPECTUS

February 24, 2004

\$205,000,000

Kulicke and Sofa Industries, Inc.

0.5% Convertible Subordinated Notes due 2008 and the Common Stock issuable upon conversion of the Notes

We issued the notes in a private placement in November 2003. This prospectus will be used by selling securityholders to resell their notes and the common stock issuable upon conversion of their notes.

The notes are convertible at any time on or after February 20, 2004 and on or before the final maturity date into shares of our common stock at an initial conversion rate of 49.1884 shares per \$1,000 principal amount of notes (equivalent to a conversion price of \$20.33 per share), subject to adjustment. We will pay interest on the notes on May 30 and November 30 of each year, beginning on May 30, 2004. The notes will mature on November 30, 2008, unless earlier converted.

Holders may require us to repurchase the notes if we experience a fundamental change before November 30, 2008, as defined in the indenture governing the notes.

Our common stock is traded on the Nasdaq National Market under the symbol KLIC. The reported last sale price of our common stock on the Nasdaq National Market on February 13, 2004 was \$14.29 per share.

Investing in the securities offered hereby involves risks. See Risk Factors beginning on page 4.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

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SUMMARY

This summary contains basic information about us and this prospectus. Because it is a summary, it does not contain all of the information that you should consider before investing. You should read this entire prospectus carefully, including the section entitled Risk Factors and our financial statements and the other documents, included or incorporated by reference in this prospectus, before making an investment decision.

We design, manufacture and market capital equipment, packaging materials and test interconnect products as well as service, maintain, repair and upgrade equipment, all used to assemble or test semiconductor devices. We also provide semiconductor wafer bumping services (flip chip bumping) and licensing of our bumping process to semiconductor manufacturers and their subcontractors. We are currently the world's leading supplier of semiconductor wire bonding assembly equipment, according to VLSI Research, Inc. Our business is currently divided into three product segments:

equipment;

packaging materials; and

wafer and package test interconnect products.

We believe we are the only major supplier to the semiconductor assembly industry that can provide customers with semiconductor wire bonding equipment along with the complimentary packaging materials and test interconnect products that actually contact the surface of the customer's semiconductor devices. We believe that the ability to control all of these assembly related products provides us with a significant competitive advantage and should allow us to develop system solutions to the new technology challenges inherent in assembling and packaging next-generation semiconductor devices.

Kulicke and Soffa Industries, Inc. was incorporated in Pennsylvania in 1956. Our principal offices are located at 2101 Blair Mill Road, Willow Grove, Pennsylvania 19090 and our telephone number is (215) 784-6000. We maintain a website with the address www.kns.com. We are not including the information contained on our website as a part of, or incorporating it by reference into, this prospectus.

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THE OFFERING

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| Notes Offered | \$205 million principal amount of 0.5% Convertible Subordinated Notes due 2008. |
| Interest | 0.5% per annum on the principal amount, payable semiannually in arrears in cash on May 30 and November 30 of each year, beginning May 30, 2004. The first interest payment will include interest from the date of issuance. |
| Maturity Date | November 30, 2008. |
| Ranking | <p>The notes are subordinated in right of payment to all of our senior indebtedness and are subordinated by operation of law to all liabilities (including trade payables) of our subsidiaries. The notes rank equally with our 5¼% Convertible Subordinated Notes due 2006.</p> <p>As of December 31, 2003, we had senior indebtedness outstanding in the amount of approximately \$3.1 million, and our subsidiaries had approximately \$108.8 million of liabilities outstanding, excluding liabilities owed to us. Neither we nor our subsidiaries are prohibited from incurring debt, including senior indebtedness, under the indenture.</p> |
| Conversion | <p>You may convert each note into shares of our common stock at an initial conversion rate of 49.1884 shares per \$1,000 principal amount of notes (equivalent to a conversion price of \$20.33 per share), subject to adjustment upon specified events, at any time on or after February 20, 2004 and on or before the final maturity date.</p> <p>In addition, if we declare a cash dividend or distribution to all or substantially all of the holders of our common stock (excluding any dividend or distribution in connection with our liquidation, dissolution or winding up), the conversion rate will be adjusted as described under Description of Notes Conversion of the Notes.</p> |

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| | Upon conversion, the holder will not receive any cash payment representing accrued but unpaid interest or liquidated damages, if any. |
| Sinking Fund | None. |
| Optional Redemption | We may not redeem the notes before their maturity. |
| Fundamental Change | If a fundamental change (as described under Description of Notes Fundamental Change) occurs before maturity, you may require us to purchase all or part of your notes at a redemption price equal to 100% of their principal amount, plus accrued and unpaid interest. |
| Use of Proceeds | We will not receive any of the proceeds from the sale by any selling securityholder of the notes or the underlying common stock. |
| PORTAL SM Trading of Notes | The notes are eligible for trading in The PORTAL SM Market of the National Association of Securities Dealers, Inc. |
| Listing of Common Stock | Our common stock is listed on the Nasdaq National Market under the symbol KLIC. |
| Ratio of Earnings to Fixed Charges | The ratio of earnings to fixed charges for fiscal 2000 was 16X and for the three months ended December 31, 2003 was 2X. We would have had to generate additional earnings of \$16.2 million in fiscal 1999, \$87.1 million in fiscal 2001, \$243.6 million in fiscal 2002 and \$63.8 million in fiscal 2003 to achieve a ratio of 1:1. |
| Risk Factors | You should read Risk Factors beginning on page 4 of this prospectus to better understand the risks associated with an investment in the notes. |

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RISK FACTORS

You should carefully consider all of the information contained in this prospectus and the financial statements and other documents incorporated by reference into this prospectus, including the risks described below before making an investment decision. The risks described below are not the only ones facing our company. Additional risks not presently known to us or that we currently consider less significant may also impair our business operations.

Our business, financial condition, or results of operations could be materially adversely affected by any of these risks. The trading price of the notes and our common stock could decline due to any of these risks, and you may lose all or part of your investment.

This prospectus also contains or incorporates by reference forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in such forward-looking statements for many different reasons, including the risks faced by us described below and elsewhere in this prospectus.

Risks Relating to Our Business

The semiconductor industry is volatile with sharp periodic downturns and slowdowns

Our operating results are significantly affected by the capital expenditures of large semiconductor manufacturers and their subcontract assemblers and vertically integrated manufacturers of electronic systems. Expenditures by semiconductor manufacturers and their subcontract assemblers and vertically integrated manufacturers of electronic systems depend on the current and anticipated market demand for semiconductors and products that use semiconductors, including personal computers, telecommunications equipment, consumer electronics, and automotive goods. Significant downturns in the market for semiconductor devices or in general economic conditions reduce demand for our products and materially and adversely affect our business, financial condition and operating results.

Historically, the semiconductor industry has been volatile, with periods of rapid growth followed by industry-wide retrenchment. These periodic downturns and slowdowns have adversely affected our operating results. They have been characterized by, among other things, diminished product demand, excess production capacity, and accelerated erosion of selling prices. This has severely and negatively affected the industry's demand for capital equipment, including the assembly equipment that we manufacture and market and, to a lesser extent, the packaging materials and test interconnect solutions that we sell.

The semiconductor industry has recently experienced downturns in fiscal 1998 through the first half of fiscal 1999, and in fiscal 2001 through the first half of fiscal 2003. In the 1998-1999 downturn, our net sales declined from approximately \$501.9 million in fiscal 1997 to \$411.0 million in fiscal 1998. In the most recent downturn, our net sales declined from approximately \$899.3 million in fiscal 2000 to \$464.7 million in fiscal 2002. Although the business environment improved in the fourth quarter of fiscal 2003 and first quarter of fiscal 2004, we cannot assure you that the market for semiconductors will continue to improve or that the market will not experience

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additional and possibly more severe and prolonged downturns in the future. Such downturns would adversely affect our business, financial condition and operating results.

We may experience increasing price pressure

Our historical business strategy for many of our products has focused on product performance and customer service rather than on price. The length and severity of the most recent economic downturn increased cost pressures on our customers and we have observed increasing price sensitivity on their part. In response, we are actively seeking to reduce our cost structure by moving operations to lower cost areas and by reducing other operating costs. If we are unable to realize prices that allow us to continue to compete on the basis of performance and service, our financial condition and operating results may be materially and adversely affected.

Our quarterly operating results fluctuate significantly and may continue to do so in the future

In the past, our quarterly operating results have fluctuated significantly; we expect that they will continue to fluctuate. Although these fluctuations are partly due to the volatile nature of the semiconductor industry, they also reflect other factors, many of which are outside of our control.

Some of the factors that may cause our revenues and/or operating margins to fluctuate significantly from period to period are:

market downturns;

the mix of products that we sell because, for example:

our test interconnect business has lower margins than assembly equipment and packaging materials;

some lines of equipment within our business segments are more profitable than others; and

some sales arrangements have higher margins than others;

the volume and timing of orders for our products and any order postponements;

virtually all of our orders are subject to cancellation, deferral or rescheduling by the customer without prior notice and with limited or no penalties;

adverse changes in our pricing, or that of our competitors;

higher than anticipated costs of development or production of new equipment models;

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the availability and cost of the components for our products;

market acceptance of our new products and upgraded versions of our products;

customers' delay in purchasing our products due to customer anticipation that we or our competitors may introduce new or upgraded products; and

our competitors' introduction of new products.

Many of our expenses, such as research and development, selling, general and administrative expenses and interest expense, do not vary directly with our net sales. As a result, a decline in our net sales would adversely affect our operating results. In addition, if we were to incur additional expenses in a quarter in which we did not experience comparable increased net sales, our operating results would decline. In a downturn, we may have excess inventory, which is required to be written off. Some of the other factors that may cause our expenses to fluctuate from period-to-period include:

the timing and extent of our research and development efforts;

severance, resizing and the costs of relocating or closing down facilities;

inventory write-offs due to obsolescence; and

inflationary increases in the cost of labor or materials.

Because our revenues and operating results are volatile and difficult to predict, we believe that consecutive period-to-period comparisons of our operating results may not be a good indication of our future performance.

Most of our sales and a substantial portion of our manufacturing operations are located outside of the United States, and we rely on independent foreign distribution channels for certain product lines; all of which subject us to risks from changes in trade regulations, currency fluctuations, political instability and war

Approximately 79% of our net sales for fiscal 2003, 72% of our net sales for fiscal 2002 and 62% of our net sales for fiscal 2001 were attributable to sales to customers for delivery outside of the United States, in particular to customers in the Asia/Pacific region. We expect these trends to continue. Thus, our future performance will depend, in significant part, on our ability to continue to compete in foreign markets, particularly in Asia/Pacific. These economies have been highly volatile, resulting in significant fluctuation in local currencies, and political and economic instability. These conditions may continue or worsen, which may materially and adversely affect our business, financial condition and operating results.

We also rely on non-United States suppliers for materials and components used in our products, and most of our manufacturing operations are located in countries other than the United States. We manufacture our automatic ball bonders and bonding wire in Singapore, we

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manufacture capillaries in Israel and China and we have sales, service and support personnel in China, Hong Kong, Japan, Korea, Malaysia, the Philippines, Singapore, Taiwan and Europe. We also rely on independent foreign distribution channels for certain of our product lines. As a result, a major portion of our business is subject to the risks associated with international, and particularly Asian/Pacific, commerce, such as:

risks of war and civil disturbances or other events that may limit or disrupt markets;

expropriation of our foreign assets;

longer payment cycles in foreign markets;

international exchange restrictions;

restrictions on the repatriation of our assets, including cash;

the difficulties of staffing and managing dispersed international operations;

episodic events outside our control such as, for example, the outbreak of Severe Acute Respiratory Syndrome;

tariff and currency fluctuations;

changing political conditions;

labor conditions and costs;

foreign governments' monetary policies;

less protective foreign intellectual property laws; and

legal systems which are less developed and which may be less predictable than those in the United States.

Because most of our foreign sales are denominated in United States dollars, an increase in value of the United States dollar against foreign currencies, particularly the Japanese yen, will make our products more expensive than those offered by some of our foreign competitors. Our ability to compete overseas in the future may be materially and adversely affected by a strengthening of the United States dollar against foreign currencies. Because we have significant assets, including cash, outside the United States, those assets are subject to risks of destruction and seizure, and it may be difficult to repatriate them, or repatriation may result in the payment by us of significant United States taxes.

Our international operations also depend upon a continuation of favorable trade relations between the United States and those foreign countries in which our customers, subcontractors, and materials suppliers have operations. A protectionist trade environment in

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either the United States or those foreign countries in which we do business, such as a change in the current tariff structures, export compliance or other trade policies, may materially and adversely affect our ability to sell our products in foreign markets.

Our business depends on attracting and retaining management, marketing and technical employees

As with many other technology companies, our future success depends on our ability to hire and retain qualified management, marketing and technical employees. In particular, we periodically experience shortages of engineers. If we are unable to continue to attract and retain the managerial, marketing and technical personnel we require, our business, financial condition and operating results could be materially and adversely affected.

We may not be able to rapidly develop and manufacture new and enhanced products required to maintain or expand our business

We believe that our continued success depends on our ability to continuously develop and manufacture new products and product enhancements on a timely and cost-effective basis. We must timely introduce these products and product enhancements into the market in response to customers' demands for higher performance assembly equipment, leading-edge materials and for test interconnect solutions customized to address rapid technological advances in integrated circuits and capital equipment designs. Our competitors may develop new products or enhancements to their products that offer performance, features and lower prices that may render our products less competitive. The development and commercialization of new products requires significant capital expenditures over an extended period of time, and some products that we seek to develop may never become profitable. In addition, we may not be able to develop and introduce products incorporating new technologies in a timely manner or at prices that will satisfy our customers' future needs or achieve market acceptance.

Difficulties in forecasting demand for our product lines may lead to periodic inventory shortages or excesses

We typically operate our business with a relatively short backlog. As a result, we sometimes experience inventory shortages or excesses. We generally order supplies and otherwise plan our production based on internal forecasts of demand. We have in the past, and may again in the future, fail to forecast accurately demand, in terms of both volume and configuration for either our current or next-generation wire bonders. This has led to and may in the future lead to delays in product shipments or, alternatively, an increased risk of inventory obsolescence. If we fail to forecast accurately demand for our products, including assembly equipment, packaging materials and test interconnect solutions, our business, financial condition and operating results may be materially and adversely affected.

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Advanced packaging technologies other than wire bonding may render some of our products obsolete

Advanced packaging technologies have emerged that may improve device performance or reduce the size of an integrated circuit package, as compared to traditional die and wire bonding. These technologies include flip chip and chip scale packaging. Some of these advanced technologies eliminate the need for wires to establish the electrical connection between a die and its package. The semiconductor industry may, in the future, shift a significant part of its volume into advanced packaging technologies, such as those discussed above, which do not employ our products. If a significant shift to advanced packaging technologies were to occur and we had not developed products using these new technologies, demand for our wire bonders and related packaging materials may be materially and adversely affected.

A decline in demand for any of our products could cause our revenues to decline significantly

If demand for, or pricing of, our wire bonders or test interconnect solutions declines because our competitors introduce superior or lower cost systems, the semiconductor industry changes or demand for our products declines because of other events beyond our control, our business, financial condition and operating results may be materially and adversely affected.

Because a small number of customers account for most of our sales, our revenues could decline if we lose any significant customer

The semiconductor manufacturing industry is highly concentrated, with a relatively small number of large semiconductor manufacturers and their subcontract assemblers and vertically integrated manufacturers of electronic systems purchasing a substantial portion of our semiconductor assembly equipment, packaging materials and test interconnect solutions. Sales to a relatively small number of customers account for a significant percentage of our net sales. In fiscal 2003 and 2002, sales to Advanced Semiconductor Engineering, our largest customer, accounted for 13% and 12%, respectively, of our net sales. In fiscal 2001, no customer accounted for more than 10% of our net sales.

We expect that sales of our products to a small number of customers will continue to account for a high percentage of our net sales for the foreseeable future. Thus, our business success depends on our ability to maintain strong relationships with our important customers. Any one of a number of factors could adversely affect these relationships. If, for example, during periods of escalating demand for our equipment, we were unable to add inventory and production capacity quickly enough to meet the needs of our customers, they may turn to other suppliers making it more difficult for us to retain their business. Similarly, if we are unable for any other reason to meet production or delivery schedules, particularly during a period of escalating demand, our relationships with our key customers could be adversely affected. If we lose orders from a significant customer, or if a significant customer reduces its orders substantially, these losses or reductions may materially and adversely affect our business, financial condition and operating results.

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We depend on a small number of suppliers for raw materials, components and subassemblies. If our suppliers do not deliver their products to us, we would be unable to deliver our products to our customers

Our products are complex and require raw materials, components and subassemblies having a high degree of reliability, accuracy and performance. We rely on subcontractors to manufacture many of these components and subassemblies and we rely on sole source suppliers for some important components and raw materials, including gold. As a result, we are exposed to a number of significant risks, including:

lack of control over the manufacturing process for components and subassemblies;

changes in our manufacturing processes, dictated by changes in the market, that may delay our shipments;

our inadvertent use of defective or contaminated raw materials;

the relatively small operations and limited manufacturing resources of some of our suppliers, which may limit their ability to manufacture and sell subassemblies, components or parts in the volumes we require and at acceptable quality levels and prices;

the risk of reliability or quality problems with certain key subassemblies provided by single source suppliers as to which we may not have any short term alternative;

shortages caused by disruptions at our suppliers and subcontractors for a variety of reasons, including work stoppage, fire, earthquake, flooding or other natural disasters;

delays in the delivery of raw materials or subassemblies, which, in turn, may delay our shipments; and

the loss of suppliers as a result of the consolidation of suppliers in the industry.

If we are unable to deliver products to our customers on time for these or any other reasons; if we are unable to meet customer expectations as to cycle time; or if we do not maintain acceptable product quality or reliability, our business, financial condition and operating results may be materially and adversely affected.

Our diversification presents significant management and operating challenges

During fiscal 2001, we acquired two companies that design and manufacture test interconnect solutions, Cerprobe Corporation and Probe Technology Corporation, and combined their operations to create our test division. Since its acquisition in 2001, our test interconnect business has not performed to our expectation. Problems include difficulty in rationalizing

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duplicated products and facilities, and in integrating these acquisitions. Our plan to correct these problems centers on the following steps: standardize production processes between the various test manufacturing sites, create and ramp production of our highest volume products in a new lower cost site in China and/or outsource production where appropriate, then rationalize excess capacity by converting existing higher cost, low volume manufacturing sites to service centers. If we are unable to successfully implement this plan, our operating margins and results of operations will continue to be adversely affected by the performance of our test interconnect segment.

More generally, our diversification strategy has increased demands on our management, financial resources and information and internal control systems. Our success will depend in part on our ability to manage and integrate our test interconnect and equipment and packaging materials businesses and to continue successfully to implement, improve and expand our systems, procedures and controls. If we fail to integrate successfully our existing businesses or businesses that we may subsequently acquire or to develop the necessary internal procedures to manage diversified businesses, our business, financial condition and operating results may be materially and adversely affected.

Although we have no current plans to do so, we may from time to time in the future seek to expand our business through acquisition. In that event, the success of any such acquisition will depend, in part, on our ability to integrate and finance (on acceptable terms) the acquisition.

We may be unable to continue to compete successfully in the highly competitive semiconductor equipment, packaging materials and test interconnect solutions industries

The semiconductor equipment, packaging materials and test interconnect solutions industries are very competitive. In the semiconductor equipment and test interconnect solutions markets, significant competitive factors include performance, quality, customer support and price. In the semiconductor packaging materials industry, competitive factors include price, delivery and quality.

In each of our markets, we face competition and the threat of competition from established competitors and potential new entrants, some of which have significantly greater financial, engineering, manufacturing and marketing resources than we have. Some of these competitors are Asian and European companies that have had and may continue to have an advantage over us in supplying products to local customers who appear to prefer to purchase from local suppliers, without regard to other considerations.

We expect our competitors to improve their current products' performance, and to introduce new products and materials with improved price and performance characteristics. Our competitors may independently develop technology that is similar to or better than ours. New product and materials introductions by our competitors or by new market entrants could hurt our sales. If a particular semiconductor manufacturer or subcontract assembler selects a competitor's product or materials for a particular assembly operation, we may not be able to sell products or materials to that manufacturer or assembler for a significant period of time because manufacturers and assemblers sometimes develop lasting relations with suppliers, and assembly

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equipment in our industry often goes years without requiring replacement. In addition, we may have to lower our prices in response to price cuts by our competitors, which may materially and adversely affect our business, financial condition and operating results. We cannot assure you that we will be able to continue to compete in these or other areas in the future. If we cannot compete successfully, we could be forced to reduce prices, and could lose customers and market share and experience reduced margins and profitability.

Our success depends in part on our intellectual property, which we may be unable to protect

Our success depends in part on our proprietary technology. To protect this technology, we rely principally on contractual restrictions (such as nondisclosure and confidentiality provisions) in our agreements with employees, vendors, consultants and customers and on the common law of trade secrets and proprietary know-how. We also rely, in some cases, on patent and copyright protection. We may not be successful in protecting our technology for a number of reasons, including:

employees, vendors, consultants and customers may violate their contractual agreements, and the cost of enforcing those agreements may be prohibitive, or those agreements may be unenforceable or more limited than we anticipate;

foreign intellectual property laws may not adequately protect our intellectual property rights; and

our patent and copyright claims may not be sufficiently broad to effectively protect our technology; our patents or copyrights may be challenged, invalidated or circumvented; or we may otherwise be unable to obtain adequate protection for our technology.

In addition, our partners and alliances may also have rights to technology that we develop. We may incur significant expense to protect or enforce our intellectual property rights. If we are unable to protect our intellectual property rights, our competitive position may be weakened.

Third parties may claim we are infringing on their intellectual property, which could cause us to incur significant litigation costs or other expenses, or prevent us from selling some of our products

The semiconductor industry is characterized by rapid technological change, with frequent introductions of new products and technologies. Industry participants often develop products and features similar to those introduced by others, creating a risk that their products and processes may give rise to claims that they infringe on the intellectual property of others. We may unknowingly infringe on the intellectual property rights of others and incur significant liability for that infringement. If we are found to have infringed on the intellectual property rights of others, we could be enjoined from continuing to manufacture, market or use the affected product, or be required to obtain a license to continue manufacturing or using the affected product. A

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license could be very expensive to obtain or may not be available at all. Similarly, changing our products or processes to avoid infringing the rights of others may be costly or impractical.

Occasionally, third parties assert that we are, or may be, infringing on or misappropriating their intellectual property rights. In these cases, we will defend against claims or negotiate licenses where we consider these actions appropriate. Intellectual property cases are uncertain and involve complex legal and factual questions. If we become involved in this type of litigation, it could consume significant resources and divert our attention from our business.

Some of our customers are parties to litigation brought by the Lemelson Medical, Education and Research Foundation Limited Partnership (the Lemelson Foundation), in which the Lemelson Foundation claims that certain manufacturing processes used by those customers infringe patents held by the Lemelson Foundation. We have never been named a party to any such litigation. Some customers have requested that we indemnify them to the extent their liability for these claims arises from use of our equipment. We do not believe that products sold by us infringe valid Lemelson patents. If a claim for contribution were to be brought against us, we believe we would have valid defenses to assert and also would have rights to contribution and claims against our suppliers. We have not incurred any material liability with respect to the Lemelson claims or any other pending intellectual property claim to date and we do not believe that these claims will materially and adversely affect our business, financial condition or operating results. The ultimate outcome of any infringement or misappropriation claim that might be made, however, is uncertain and we cannot assure you that the resolution of any such claim would not materially and adversely affect our business, financial condition and operating results.

We may be materially and adversely affected by environmental and safety laws and regulations

We are subject to various federal, state, local and foreign laws and regulations governing, among other things, the generation, storage, use, emission, discharge, transportation and disposal of hazardous material, investigation and remediation of contaminated sites and the health and safety of our employees. Increasingly, public attention has focused on the environmental impact of manufacturing operations and the risk to neighbors of chemical releases from such operations.

Proper waste disposal plays an important role in the operation of our manufacturing plants. In many of our facilities we maintain wastewater treatment systems that remove metals and other contaminants from process wastewater. These facilities operate under permits that must be renewed periodically. A violation of those permits may lead to revocation of the permits, fines, penalties or the incurrence of capital or other costs to comply with the permits, including potential shutdown of operations.

In the future, applicable land use and environmental regulations may: (1) impose upon us the need for additional capital equipment or other process requirements, (2) restrict our ability to expand our operations, (3) subject us to liability for, among other matters, remediation, and/or (4) cause us to curtail our operations. We cannot assure you that any costs or liabilities associated

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with complying with these environmental laws will not materially and adversely affect our business, financial condition and operating results.

Other Risks

We have significant intangible assets and goodwill, which we are required to evaluate annually

In fiscal 2003, we recorded a substantial write-down of goodwill. However, our financial statements continue to reflect significant intangible assets and goodwill. We are required to perform an impairment test at least annually to support the carrying value of goodwill and intangible assets. Should we be required to recognize additional intangible or goodwill impairment charges, our financial condition would be adversely affected.

Anti-takeover provisions in our articles of incorporation and bylaws, and Pennsylvania law may discourage other companies from attempting to acquire us

Some provisions of our articles of incorporation and bylaws and of Pennsylvania law may discourage some transactions where we would otherwise experience a fundamental change. For example, our articles of incorporation and bylaws contain provisions that:

classify our board of directors into four classes, with one class being elected each year;

permit our board to issue blank check preferred stock without stockholder approval; and

prohibit us from engaging in some types of business combinations with a holder of 20% or more of our voting securities without super-majority board or stockholder approval.

Further, under the Pennsylvania Business Corporation Law, because our bylaws provide for a classified board of directors, stockholders may only remove directors for cause. These provisions and some other provisions of the Pennsylvania Business Corporation Law could delay, defer or prevent us from experiencing a fundamental change and may adversely affect our common stockholders' voting and other rights.

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Terrorist attacks, such as the attacks that occurred in New York and Washington, D.C. on September 11, 2001, or other acts of violence or war may affect the markets in which we operate and our profitability

Terrorist attacks may negatively affect our operations. There can be no assurance that there will not be further terrorist attacks against the United States or United States businesses. These attacks or armed conflicts may directly impact our physical facilities or those of our suppliers or customers. Our primary facilities include administrative, sales and R&D facilities in the United States and manufacturing facilities in the United States, Israel, Singapore and China. Also, these attacks have disrupted the global insurance and reinsurance industries with the result that we may not be able to obtain insurance at historical terms and levels for all of our facilities. Furthermore, these attacks may make travel and the transportation of our supplies and products more difficult and more expensive and ultimately affect the sales of our products in the United States and overseas. The conflicts in Afghanistan, Israel, and Iraq or any broader conflict, could have a further impact on our domestic and internal sales, our supply chain, our production capability and our ability to deliver product to our customers. Political and economic instability in some regions of the world may also result and could negatively impact our business. The consequences of any of these armed conflicts are unpredictable, and we may not be able to foresee events that could have an adverse effect on our business or your investment.

Risks Relating to an Investment in the Notes and our Common Stock

We may be unable to generate enough cash to service our debt

Our ability to make payments on our indebtedness, including the notes, and to fund planned capital expenditures and other activities will depend on our ability to generate cash in the future. This is affected by the volatile nature of our business, and general economic, competitive and other factors that are beyond our control. Assuming that the notes and our 5¼% Convertible Subordinated Notes due 2006 are not converted to our common shares, we will be required to make annual cash interest payments of \$7.6 million through fiscal 2005 and \$6.8 million in fiscal 2006. In addition, we will be required to make annual cash interest payments of \$1.0 million in each of fiscal 2007 and fiscal 2008 and \$0.2 million in fiscal 2009 on our \$205 million of convertible subordinated notes offered hereby and make principal payments of \$125 million and \$205 million in fiscal 2006 and fiscal 2009, respectively. We cannot assure you that our business will generate sufficient cash flow to service our debt or other indebtedness we or our subsidiaries may incur or that we would be able to refinance these obligations. In addition, our gold supply agreement contains restrictions on the ability of certain of our subsidiaries to declare and pay dividends to us.

Our obligations under the notes are unsecured and subordinated to all of our existing and future senior debt

Our obligations under the notes are unsecured and rank junior in priority of payment to all of our present and future senior debt. As a result, upon any distribution to our creditors in a bankruptcy, liquidation or reorganization or similar proceeding relating to us or our property, the holders of our senior debt will be entitled to be paid in full before any payment may be made

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with respect to the notes. In the event of a bankruptcy, liquidation or reorganization or similar proceeding relating to us, holders of the notes will participate with trade creditors and all holders of our other subordinated indebtedness in the assets remaining after we have paid all of our senior debt. In addition, upon a payment default with respect to designated senior debt, a covenant default entitling designated senior debt to accelerate or upon acceleration of the notes, the holders of our senior debt will be entitled to be paid before any payment will be made on the notes or on our 5¼% Convertible Subordinated Notes due 2006. As of December 31, 2003, we had senior indebtedness outstanding in the amount of approximately \$3.1 million. We also have or may incur new or additional obligations under letters of credit, guarantees, foreign exchange contracts or interest swap contracts that will be senior to our obligations under the notes. The notes and the related indenture do not limit our ability, or our subsidiaries' ability, to incur additional indebtedness, liabilities and obligations.

We may need to refinance all or a portion of our indebtedness on or before maturity. We cannot assure you that we will be able to refinance any of our indebtedness on commercially reasonable terms, if at all.

Creditors of our subsidiaries will get paid before you will get paid

Substantially all of our operations are conducted through our subsidiaries. Accordingly, we are dependent upon the cash flows of our subsidiaries to meet our debt obligations, including our obligations under the notes. The notes are not guaranteed by our subsidiaries and, consequently, our subsidiaries are not obligated or required to pay any amounts pursuant to the notes or to make funds available to us in the form of dividends or advances. In the future, we may change some portion of our business that we operate through our subsidiaries. Any payment of dividends, distributions, loans or advances by our subsidiaries will also be contingent upon our subsidiaries' earnings and are subject to statutory restrictions.

In addition, our right to participate in any distribution of assets of any of our subsidiaries, upon any subsidiary's bankruptcy, liquidation, reorganization or similar proceeding, and thus your ability as a holder of the notes to benefit indirectly from such distribution, will be subject to the prior claims of creditors of that subsidiary, except to the extent that any of our claims as a creditor of such subsidiary may be recognized. As a result, the notes are structurally subordinated to all existing and future liabilities and obligations of our subsidiaries, if any. Therefore, holders of the notes should look only to our assets for payments on the notes. The notes and the related indenture do not limit the ability of any of our subsidiaries to incur additional indebtedness, liabilities or obligations. As of December 31, 2003, our subsidiaries had approximately \$108.8 million of liabilities outstanding, excluding inter-company liabilities.

If we experience a fundamental change, we may be unable to redeem your notes as required under the indenture

Upon a fundamental change, as defined in the indenture, you will have the right to require us to redeem your notes. A fundamental change would also require that we offer to redeem our 5¼% Convertible Subordinated Notes due 2006. If we experience a fundamental change and do not have sufficient funds to pay the redemption price for all of the notes tendered, this would constitute an event of default under the indenture governing the notes. In addition, a fundamental change may be prohibited or limited by, or create an event of default under, other agreements relating to borrowings that we may enter into from time to time, which are likely to be senior indebtedness. Therefore, a fundamental change at a time when we cannot pay for your notes that

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are tendered as a result of such fundamental change could result in your receiving substantially less than the principal amount of the notes. See Description of Notes Fundamental Change and Subordination of the Notes.

In certain circumstances this registration statement may not be used to resell the notes and the common stock issuable upon their conversion; there is no prior public market for the notes, if an active trading market does not develop for the notes you may not be able to resell them

The notes and the common stock issuable upon conversion of the notes may only be offered or sold pursuant to an exemption from the registration requirements of the Securities Act or pursuant to an effective registration statement, such as the registration statement of which this prospectus forms a part. We may suspend the use of this registration statement for up to 45 days in any 3 month period or 90 days in any 12 month period under certain circumstances relating to pending corporate developments, public filings with the SEC and similar events. We also are permitted to suspend the use of the registration statement for up to 60 days in any 3 month period under certain circumstances relating to possible acquisitions, financings or similar transactions or reviews by the SEC of our periodic reporting. We cannot assure you that we, or events beyond our control, will not result in our suspending our registration of the notes or the common stock. Currently, there is no public market for the notes and we cannot assure you that an active trading market will ever develop for the notes. We also cannot assure you of the pricing at which you will be able to sell your notes if you are able to sell them at all. Future trading prices of the notes will depend on many factors, including, among other things, prevailing interest rates, our operating results and the market for similar securities. We do not intend to apply for listing of the notes on any securities exchange.

Our stock price has been and is likely to continue to be highly volatile, which may significantly affect the trading price of the notes

In recent years, the price of our common stock has fluctuated greatly. These price fluctuations have been rapid and severe. Fluctuations in the trading price of our common stock will affect the trading price of the notes. The price of our common stock may continue to fluctuate greatly in the future due to a variety of factors, including:

quarter to quarter variations in our operating results and in those of our customers and competitors;

differences in our revenue or earnings from levels expected by securities analysts;

announcements of technological innovations or new products by us or other companies; and

slowdowns or downturns in the semiconductor industry.

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One or more of these factors could significantly harm our business and cause a decline in the price of our common stock in the public market, which could adversely affect your investment as well as our business and financial operations.

Our indebtedness and interest expense will limit our cash flow and may adversely affect our operations and our ability to make full payment on your notes

As of the date of this prospectus, we have approximately \$330 million in convertible subordinated notes outstanding, including \$125 million principal amount of our 5¼% Convertible Subordinated Notes due 2006 and the notes. Our indebtedness poses risks to our business, including that:

we must use a substantial portion of our consolidated cash flow from operations to pay principal and interest on our debt, thereby reducing the funds available for working capital, capital expenditures, acquisitions, product development and other general corporate purposes;

insufficient cash flow from operations may force us to sell assets, or seek additional capital, which we may be unable to do at all or on terms favorable to us; and

our level of indebtedness may make us more vulnerable to economic or industry downturns.

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USE OF PROCEEDS

We will not receive any proceeds from the sale by any selling securityholder of the notes or the underlying common stock.

RATIO OF EARNINGS TO FIXED CHARGES

The ratio of earnings to fixed charges for each of the periods indicated is as follows:

| | Fiscal Years Ended September 30, | | | | | Three Months Ended December 31, |
|------------------------------------|----------------------------------|------|------|------|------|---------------------------------------|
| | 1999 | 2000 | 2001 | 2002 | 2003 | 2003 |
| Ratio of earnings to fixed charges | | 16X | | | | 2X |

These computations include us and our consolidated subsidiaries. These ratios are computed by dividing (a) income (loss) before taxes from continuing operations plus fixed charges and equity in loss of joint ventures by (b) fixed charges, which includes interest expense plus the portion of rent expense under operating leases we deem to be representative of the interest factor and amortization of debt issue costs.

We would have had to generate additional earnings of \$16.2 million in fiscal 1999, \$87.1 million in fiscal 2001, \$243.6 million in fiscal 2002 and \$63.8 million in fiscal 2003 to achieve a ratio of 1:1.

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DESCRIPTION OF NOTES

The notes were issued under an indenture dated as of November 26, 2003, between Kulicke and Soffa Industries, Inc., as issuer, and J.P. Morgan Trust Company, National Association, as trustee. The notes are covered by a registration rights agreement pursuant to which was filed the registration statement of which this prospectus forms a part. You may request a copy of the indenture and the registration rights agreement from the trustee.

The following description is a summary of the material provisions of the notes and the indenture. It does not purport to be complete. This summary is subject to and is qualified by reference to all the provisions of the indenture, including the definitions of certain terms used in the indenture. Wherever particular provisions or defined terms of the indenture or form of note are referred to, these provisions or defined terms are incorporated in this prospectus by reference.

As used in this Description of Notes section, references to Kulicke & Soffa, we, our or us refer solely to Kulicke and Soffa Industries, Inc., and not to our subsidiaries.

General

The notes are general unsecured debt. Our payment obligations under the notes are subordinated to our senior indebtedness as described under Subordination of the Notes. The notes rank equally with our 5¼% Convertible Subordinated Notes due 2006. The notes are convertible into our common stock as described under Conversion of the Notes.

The notes will be issued only in denominations of \$1,000 and multiples of \$1,000. The notes mature on November 30, 2008, unless converted earlier or redeemed at your option upon a fundamental change.

Neither we nor any of our subsidiaries are subject to any financial covenants under the indenture. In addition, neither we nor any of our subsidiaries are restricted under the indenture from paying dividends, incurring debt, including senior indebtedness, or issuing or repurchasing our securities.

You are not afforded protection under the indenture in the event of a highly leveraged transaction or a fundamental change of Kulicke & Soffa except to the extent described below under Fundamental Change.

We will pay interest on May 30 and November 30 of each year, beginning May 30, 2004, to recordholders at the close of business on the preceding May 15 and November 15, as the case may be, except:

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interest payable upon redemption will be paid to the person to whom principal is payable, unless the redemption date is an interest payment date in which case it is payable to the holder of record on the record date for the payment of interest; and

as set forth in the next sentence.

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If you convert your notes into common stock on an interest payment date or on the final maturity date, you will be paid the interest due on that date if you are the holder of record on the preceding record date. If you convert any of your notes into common stock during the period after any record date but before the next interest payment date, one of the following will occur:

we will not be required to pay interest on the interest payment date if the note is to be redeemed in connection with a fundamental change on a redemption date that occurs during this period; or

if otherwise, any note that is submitted for conversion during this period must also be accompanied by an amount equal to the interest due on the interest payment date on the converted principal amount, unless at the time of conversion there is a default in the payment of interest on the notes. See Conversion of the Notes.

We maintain an office in the Borough of Manhattan, the City of New York for the payment of interest, which currently is an office or agency of the trustee. We may pay interest either:

by check mailed to your address as it appears in the note register, but if you are a holder with an aggregate principal amount in excess of \$2.0 million, we will pay you, at your written election, by wire transfer in immediately available funds; or

by transfer to an account maintained by you in the United States.

However, payments to The Depository Trust Company, New York, New York, which we refer to as DTC, will be made by wire transfer of immediately available funds to the account of DTC or its nominee. Interest is computed on the basis of a 360-day year composed of twelve 30-day months.

Conversion of the Notes

You may convert your notes, in whole or in part, into common stock on or before the final maturity date of the notes, subject to prior redemption of the notes. The number of shares of common stock you will receive upon conversion of your notes will be determined by multiplying the number of \$1,000 principal amount notes you convert by the conversion rate on the date of conversion. If you have submitted your notes for redemption upon a fundamental change, you may convert your notes only if you withdraw your redemption election. You may convert your notes in part so long as this part is \$1,000 principal amount or an integral multiple of \$1,000. If any notes are converted after a record date for any interest payment date and before the next interest payment date, the notes must be accompanied by an amount equal to the interest payable on the interest payment date on the converted principal amount, unless a default in the payment of interest on the notes exists at the time of conversion.

The initial conversion rate for the notes is 49.1884 shares of our common stock per \$1,000 principal amount of notes (equivalent to a conversion price of \$20.33 per share), subject to adjustment as described below. We will not issue fractional shares of common stock upon

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conversion of the notes. Instead, we will pay cash equal to the applicable fractional amount of the market price of our common stock on the business day before the conversion date. Except as described below, you will not receive any accrued interest or dividends upon conversion.

To convert a note into common stock you must:

complete and manually sign the conversion notice on the back of the note or a facsimile of the conversion notice and deliver this notice to the conversion agent;

surrender the note to the conversion agent;

if required, furnish appropriate endorsements and transfer documents;

if required, pay all transfer or similar taxes; and

if required, pay funds equal to interest payable on the next interest payment date.

The date on which you comply with these requirements is the conversion date under the indenture.

We will adjust the conversion rate if any of the following events occur:

(1) we issue common stock as a dividend or distribution on our common stock;

(2) we issue to all holders of common stock certain rights or warrants to purchase our common stock;

(3) we subdivide, combine or reclassify our common stock;

(4) we distribute to all holders of our common stock capital stock, evidences of indebtedness or assets, including securities but excluding:

rights or warrants listed in (2) above;

dividends or distributions listed in (1) above; and

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cash distributions listed in (5) below;

(5) we distribute cash (excluding any dividend or distribution in connection with our liquidation, dissolution or winding up). If we declare such a cash dividend or distribution, the conversion rate will be increased to equal the number determined by multiplying the conversion rate in effect immediately before the record date for such dividend or distribution by the following fraction:

$$\frac{\text{(Pre-Dividend Sale Price)}}{\text{(Pre-Dividend Sale Price - Dividend Adjustment Amount)}}$$

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No adjustment to the conversion rate or your ability to convert will be made if we provide that you will participate in the cash dividend or distribution without conversion. If the denominator of the above fraction is less than \$1.00 (including a negative amount) then in lieu of any adjustment under this clause (5), we will make adequate provision so that you will have the right to receive upon conversion, in addition to the shares of common stock issuable upon conversion, the amount of cash you would have received had you converted such notes on the record date for such cash dividend or distribution.

Pre-Dividend Sale Price means the average of the last reported sale price of our common stock for the three consecutive trading days ending on the trading day immediately preceding the ex-dividend date for such dividend or distribution.

Dividend Adjustment Amount means the full amount of the dividend or distribution to the extent payable in cash applicable to one share of common stock;

(6) we or one of our subsidiaries make a payment in respect of a tender offer or exchange offer for our common stock to the extent that the cash and value of any other consideration included in the payment per share of common stock exceeds the current market price per share of common stock on the trading day next succeeding the last date on which tenders or exchanges may be made pursuant to such tender or exchange offer; and

(7) someone other than us or one of our subsidiaries makes a payment in respect of a tender offer or exchange offer in which, as of the closing date of the offer, our board of directors is not recommending rejection of the offer. The adjustment referred to in this clause (7) will be made only if:

the tender offer or exchange offer is for an amount that increases the offeror's ownership of common stock to more than 25% of the total shares of common stock outstanding; and the cash and value of any other consideration included in the payment per share of common stock exceeds the current market price per share of common stock on the business day next succeeding the last date on which tenders or exchanges may be made pursuant to the tender or exchange offer.

However, the adjustment referred to in this clause (7) will generally not be made if, as of the closing of the offer, the offering documents disclose a plan or an intention to cause us to engage in a consolidation or merger or a sale of all or substantially all of our assets.

If we have a shareholders rights plan in effect upon conversion of the notes into common stock, you will receive, in addition to the common stock, the rights under the rights plan whether or not the rights have separated from the common stock at the time of conversion, subject to limited exceptions.

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In the event of:

any reclassification of our common stock;

a consolidation, merger or combination involving Kulicke & Soffa; or

a sale or conveyance to another person or entity of all or substantially all of our property or assets;

in which holders of our common stock would be entitled to receive stock, other securities, other property, assets or cash for their shares upon conversion of your notes you will be entitled to receive the same type of consideration which you would have been entitled to receive if you had converted the notes into our common stock immediately prior to any of these events.

You may in certain situations be deemed to have received a distribution subject to United States federal income tax as a dividend in the event of any taxable distribution to holders of common stock or in certain other situations requiring a conversion rate adjustment. See Certain United States Federal Income Tax Considerations.

We may, from time to time, increase, subject to applicable law and the regulations of the National Association of Securities Dealers, the conversion rate for a period of at least 20 days if our board of directors has made a determination that this increase would be in our best interests. Any such determination by our board will be conclusive. We would give holders at least 15 days notice of any increase in the conversion rate. In addition, we may increase the conversion rate if our board of directors deems it advisable to avoid or diminish any income tax to holders of common stock resulting from any stock distribution. See Certain United States Federal Income Tax Considerations.

We will not be required to make an adjustment in the conversion rate unless the adjustment would require a change of at least one percent in the conversion rate. However, we will carry forward any adjustments that are less than one percent of the conversion rate. Except as described above in this section, we will not adjust the conversion rate for any issuance of our common stock or convertible or exchangeable securities or rights to purchase our common stock or convertible or exchangeable securities.

Sinking Fund

The notes are not entitled to any sinking fund.

Optional Redemption

We may not redeem the notes before their maturity.

Fundamental Change

If a fundamental change of Kulicke & Soffa occurs at any time before the maturity of the notes, you may require us to redeem your notes, in whole or in part, on a redemption date that

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is 30 days after the date of our notice of the fundamental change. The notes will be redeemable in integral multiples of \$1,000 principal amount.

We will redeem the notes at a price equal to 100% of the principal amount to be redeemed, plus accrued interest to, but excluding, the repurchase date. If the repurchase date is an interest payment date, we will pay interest to the record holder on the relevant record date.

We will mail to all record holders a notice of a fundamental change of Kulicke & Soffa within 10 days after it has occurred. We are also required to deliver to the trustee a copy of the fundamental change notice. If you elect to redeem your notes, you must deliver to us or our designated agent, on or before the 30th day after the date of our fundamental change notice, your redemption notice and any notes to be redeemed, duly endorsed for transfer. We will promptly pay the redemption price for notes surrendered for redemption following the repurchase date.

A fundamental change of Kulicke & Soffa is any transaction or event (whether by means of an exchange offer, liquidation, tender offer, consolidation, merger, combination, reclassification, recapitalization or otherwise) in connection with which all or substantially all of our common stock is exchanged for, converted into, acquired for or constitutes solely the right to receive consideration which is not all or substantially all common stock that:

is listed, or immediately after the transaction or event will be listed, on one or more of (1) a United States national securities exchange, (2) the London Stock Exchange, (3) the Tokyo Stock Exchange, or (4) the German Stock Exchange; or

is approved, or immediately after the transaction or event will be approved, for quotation on the Nasdaq National Market or any similar United States system of automated dissemination of quotations of securities prices.

We will comply with any applicable provisions of Rule 13e-4 and any other applicable tender offer rules under the Exchange Act in the event of a fundamental change.

These fundamental change redemption rights could discourage a potential acquiror of Kulicke & Soffa. However, this fundamental change redemption feature is not the result of management's knowledge of any specific effort to obtain control of Kulicke & Soffa by means of a merger, tender offer or solicitation, or part of a plan by management to adopt a series of anti-takeover provisions. The term fundamental change is limited to specified transactions and may not include other events that might adversely affect our financial condition or business operations. In addition, our obligation to offer to redeem the notes upon a fundamental change would not necessarily afford you protection in the event of a highly leveraged transaction, reorganization, merger or similar transaction involving Kulicke & Soffa.

We may be unable to redeem the notes in the event of a fundamental change. If a fundamental change were to occur, we may not have enough funds to pay the redemption price for all tendered notes. In addition, future agreements relating to our indebtedness may contain provisions prohibiting the redemption of the notes under certain circumstances, or expressly prohibit our repurchase of the notes upon a fundamental change or may provide that a

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fundamental change constitutes an event of default under that agreement. If a fundamental change occurs at a time when we are prohibited from purchasing or redeeming the notes, we could seek the consent of our lenders to redeem the notes or could attempt to refinance this debt. If we do not obtain a consent or refinance the debt, we could not purchase or redeem the notes. Our failure to redeem tendered notes would constitute an event of default under the indenture, which might constitute a default under the terms of our other indebtedness. In such circumstances, or if a fundamental change would constitute an event of default under our senior indebtedness, if any, the subordination provisions of the indenture would restrict payments to the holders of notes.

Subordination of the Notes

Payment on the notes will, to the extent provided in the indenture, be subordinated in right of payment to the prior payment in full of all of our senior indebtedness. The notes also are effectively subordinated to all debt and other liabilities, including trade payables and lease obligations, if any, of our subsidiaries.

As of December 31, 2003, we had senior indebtedness outstanding in the amount of approximately \$3.1 million, and our subsidiaries had approximately \$108.8 million of other liabilities outstanding, excluding inter-company liabilities. The notes rank equally with our 5¼% Convertible Subordinated Notes due 2006. Neither we nor our subsidiaries are prohibited under the indenture from incurring debt, including senior indebtedness. We may, from time to time, incur additional debt, including senior indebtedness. Our subsidiaries may also, from time to time, incur other additional debt and liabilities.

Upon any distribution of our assets upon any dissolution, winding up, liquidation or reorganization, the payment of the principal of, or premium, if any, interest, and liquidated damages, if any, on the notes will be subordinated in right of payment to the prior payment in full in cash or other payment satisfactory to the holders of senior indebtedness of all senior indebtedness. In the event of any acceleration of the notes because of an event of default, the holders of any outstanding senior indebtedness would be entitled to payment in full in cash or other payment satisfactory to the holders of senior indebtedness of all senior indebtedness obligations before the holders of the notes are entitled to receive any payment or distribution. We are required under the indenture to notify holders of senior indebtedness promptly if payment of the notes is accelerated because of an event of default.

We may not make any payment on the notes if:

a default in the payment of designated senior indebtedness occurs and is continuing beyond any applicable period of grace (called a payment default); or

a default other than a payment default on any designated senior indebtedness occurs and is continuing that permits holders of designated senior indebtedness to accelerate its maturity, or in the case of a lease, a default occurs and is continuing that permits the lessor either to terminate the lease or require us to make an irrevocable offer to terminate the lease following an event of default under the

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lease, and the trustee receives a notice of such default (called a payment blockage notice) from us or any other person permitted to give such notice under the indenture (called a non-payment default).

We may resume payments and distributions on the notes:

in case of a payment default, upon the date on which such default is cured or waived or ceases to exist; and

in case of a non-payment default, upon the earlier of the date on which such nonpayment default is cured or waived or ceases to exist, or 179 days after the date on which the payment blockage notice is received, if the maturity of the designated senior indebtedness has not been accelerated, or in the case of any lease, 179 days after notice is received if we have not received notice that the lessor under such lease has exercised its right to terminate the lease or require us to make an irrevocable offer to terminate the lease following an event of default under the lease.

No new period of payment blockage may be commenced pursuant to a payment blockage notice unless 365 days have elapsed since the initial effectiveness of the immediately prior payment blockage notice. No nonpayment default that existed or was continuing on the date of delivery of any payment blockage notice may be the basis for any later payment blockage notice.

If the trustee or any holder of the notes receives any payment or distribution of our assets in contravention of the subordination provisions on the notes before all senior indebtedness is paid in full in cash or other payment satisfactory to holders of senior indebtedness, then such payment or distribution will be held in trust for the benefit of holders of senior indebtedness or their representatives to the extent necessary to make payment in full in cash or payment satisfactory to the holders of senior indebtedness of all unpaid senior indebtedness.

In the event of our bankruptcy, dissolution or reorganization, holders of senior indebtedness may receive more, ratably, and holders of the notes may receive less, ratably, than our other creditors. This subordination will not prevent the occurrence of any event of default under the indenture.

The notes are exclusively obligations of Kulicke & Soffa. Substantially all of our operations are conducted through our subsidiaries. As a result, our cash flow and our ability to service our debt, including the notes, is dependent upon the earnings of our subsidiaries. In addition, we are dependent on the distribution of earnings, loans or other payments by our subsidiaries to us.

Our subsidiaries are separate and distinct legal entities. Our subsidiaries have no obligation to pay any amounts due on the notes. Our subsidiaries are not required to provide us with funds for our payment obligations, whether by dividends, distributions, loans or other payments. In addition, any payment of dividends, distributions, loans or advances by our

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subsidiaries to us could be subject to statutory or contractual restrictions. Payments to us by our subsidiaries will also be contingent upon our subsidiaries' earnings and business considerations.

Our right to receive any assets of any of our subsidiaries upon their liquidation or reorganization, and therefore the right of the holders to participate in those assets, is effectively subordinated to the claims of that subsidiary's creditors, including trade creditors. In addition, even if we were a creditor to any of our subsidiaries, our rights as a creditor would be subordinate to any security interest in the assets of our subsidiaries and any indebtedness of our subsidiaries senior to that held by us.

We are obligated to pay reasonable compensation to the trustee and to indemnify the trustee against certain losses, liabilities or expenses incurred by the trustee in connection with its duties relating to the notes. The trustee's claims for these payments will generally be senior to those of noteholders in respect of all funds collected or held by the trustee.

Certain Definitions

designated senior indebtedness means any senior indebtedness that expressly provides that such senior indebtedness will be *designated senior indebtedness* for purposes of the indenture. Any agreement for designated senior indebtedness may place limitations and conditions on the right of the creditor to exercise the rights of designated senior indebtedness.

indebtedness means:

(1) all indebtedness, obligations and other liabilities for borrowed money, including overdrafts, foreign exchange contracts, currency exchange agreements, interest rate protection agreements, and any loans or advances from banks, or evidenced by bonds, debentures, notes, or similar instruments, other than any account payable or other accrued current liability or obligation incurred in the ordinary course of business in connection with the obtaining of materials or services;

(2) obligations with respect to letters of credit, bank guarantees and bankers' acceptances;

(3) obligations in respect of leases required in conformity with generally accepted accounting principles to be accounted for as capitalized lease obligations on our balance sheet;

(4) all obligations and other liabilities under any lease or related document in connection with the lease of real property that provides that we are contractually obligated to purchase or cause a third party to purchase the leased property, and thereby guarantee a minimum residual value of the leased property to the lessor and our obligations under the lease or related document to purchase or to cause a third party to purchase the leased property;

(5) all obligations with respect to an interest rate or other swap, cap or collar agreement or foreign currency hedge, exchange or purchase agreement;

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(6) all direct or indirect guaranties and similar agreements in respect of, and any obligations or liabilities to purchase, acquire or otherwise assure a creditor against loss in respect of, indebtedness, obligations or liabilities of others of the type described in (1) through (5) above;

(7) any obligations described in (1) through (6) above secured by any mortgage, pledge, lien or other encumbrance existing on property which is owned or held by us; and

(8) any amendments or modifications to (1) through (7) above.

senior indebtedness means the principal, premium, if any, interest, including any interest accruing after bankruptcy, and rent or termination payment on or other amounts due on our current or future indebtedness, whether created, incurred, assumed, guaranteed or in effect guaranteed by us, including any deferrals, renewals, extensions, refundings, amendments, modifications or supplements to the above. However, senior indebtedness does not include:

indebtedness that expressly provides that it is not senior in right of payment to the notes or expressly provides that it is on parity with or junior to the notes;

our indebtedness to any of our majority-owned subsidiaries; and

the 5¼% Convertible Subordinated Notes due 2006 and the notes.

Events of Default; Notice and Waiver

The following are events of default under the indenture:

we fail to pay principal or premium, if any, when due upon maturity or redemption or otherwise on the notes, whether or not the payment is prohibited by the subordination provisions of the indenture;

we fail to pay any interest and liquidated damages, if any, on the notes, when due whether or not the payment is prohibited by the subordination provisions of the indenture and such failure continues for a period of 30 days;

we fail to perform or observe any of the other covenants in the indenture for 60 days after notice; or

certain events involving our bankruptcy, insolvency or reorganization.

The trustee may withhold notice to the holders of the notes of any default, except defaults in payment of principal, premium, interest or liquidated damages, if any, on the notes. However, the trustee must consider it to be in the interest of the holders of the notes to withhold this notice.

If an event of default occurs and continues, the trustee or the holders of at least 25% in principal amount of the outstanding notes may declare the principal, premium, if any, and accrued interest and liquidated damages, if any, on the outstanding notes to be immediately due

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and payable. In case of certain events of bankruptcy or insolvency involving us, the principal, premium, if any, and accrued interest and liquidated damages, if any, on the notes will automatically become due and payable. However, if we cure all defaults, except the nonpayment of principal, premium, if any, interest or liquidated damages, if any, that became due as a result of the acceleration, and meet certain other conditions, with certain exceptions, this declaration may be cancelled and the holder of a majority of the principal amount of outstanding notes may waive these past defaults.

Payments of principal, premium, if any, or interest on the notes that are not made when due will accrue interest at the annual rate of 0.5% from the required payment date.

The holders of a majority of outstanding notes will have the right to direct the time, method and place of any proceedings for any remedy available to the trustee, subject to limitations specified in the indenture.

No holder of notes may pursue any remedy under the indenture, except in the case of a default in the payment of principal, premium or interest on the notes, unless:

the holder has given the trustee written notice of an event of default;

the holders of at least 25% in principal amount of outstanding notes make a written request, and offer reasonable indemnity, to the trustee to pursue the remedy;

the trustee does not receive an inconsistent direction from the holders of a majority in principal amount of the notes; and

the trustee fails to comply with the request within 60 days after receipt.

Consolidation, Merger and Sale of Assets

We may, without your consent, consolidate with or merge into any other person or sell, convey or lease all or substantially all of our property to any other person if such person:

is authorized to acquire and operate the same;

is organized under the laws of the United States of America, any state thereof or the District of Columbia, or, if not organized in any such jurisdiction, if (1) such person agrees to be subject to the service of process laws of the State of New York and (2) under the laws of such person's jurisdiction of organization, payments on the notes (in cash or in shares of our common stock upon conversion) would not be subject to withholding tax; and

expressly assumes our obligations under the indenture and the notes by means of a supplemental indenture satisfactory in form to the trustee.

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Under any consolidation or merger or any sale, conveyance or lease of all or substantially all of our property as described in the preceding paragraph, the successor company will be our successor and will succeed to, and be substituted for, and may exercise every right and power of, Kulicke & Soffa under the indenture. If the predecessor is still in existence after the transaction, it will be released from its obligations under the indenture and the notes, except in the case of a lease of all or substantially all of our property.

Modification and Waiver

The consent of the holders of a majority in principal amount of the outstanding notes is required to modify or amend the indenture. However, a modification or amendment requires the consent of the holder of each affected note if it would:

extend the fixed maturity of any note;

reduce the rate or extend the time for payment of interest of any note;

reduce the principal amount or premium of any note;

reduce any amount payable upon redemption or repurchase of any note;

adversely change our obligation to redeem any note upon a fundamental change;

impair the right of a holder to institute suit for payment on any note;

change the currency in which any note is payable;

impair the right of a holder to convert any note;

adversely modify the subordination provisions of the indenture;

reduce the quorum or voting requirements under the indenture; or

subject to specified exceptions, modify certain of the provisions of the indenture relating to modification or waiver of provisions of the indenture; or reduce the percentage of notes required for consent to any modification of the indenture.

We are permitted to modify certain provisions of the indenture without the consent of the holders of the notes.

Information Concerning the Trustee

We have appointed J.P. Morgan Trust Company, National Association, the trustee under the indenture, as paying agent, conversion agent, note registrar and custodian for the notes. The trustee or its affiliates may provide banking and other services to us in the ordinary course of their business.

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The indenture contains certain limitations on the rights of the trustee, as long as it or any of its affiliates is then our creditor, to obtain payment of claims in certain cases or to realize on certain property received on any claim as security or otherwise. The trustee and its affiliates may engage in other transactions with us. However, if the trustee or any affiliate continues to have any conflicting interest and a default occurs with respect to the notes, the trustee must eliminate such conflict or resign.

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DESCRIPTION OF CAPITAL STOCK

Our authorized capital stock consists of 200 million shares of common stock, without par value, and 5 million shares of preferred stock, without par value. As of February 13, 2004, there were 50,673,882 million shares of common stock and no shares of preferred stock outstanding. The following description of our capital stock is qualified in its entirety by reference to our articles of incorporation and bylaws, each as amended, and the description of our common stock contained in our registration statement on Form 8-A12G/A filed with the SEC which has been incorporated by reference in this prospectus.

Common Stock

The holders of our common stock are entitled to one vote per share for each share held of record on all matters submitted to a vote of stockholders. Subject to preferential rights with respect to any series of preferred stock that may be issued, holders of our common stock are entitled to receive ratably such dividends as may be declared by the board of directors on the common stock out of funds legally available therefor and, in the event of a liquidation, dissolution or winding-up of our affairs, are entitled to share equally and ratably in all of our remaining assets and funds. In the election of directors, the holders of our common stock may multiply the number of votes the stockholder is entitled to cast by the total number of directors to be elected at a meeting of stockholders and cast the whole number of votes for one candidate or distribute them among some or all candidates. The holders of the common stock have no preemptive rights or rights to convert shares of our common stock into any other securities and are not subject to future calls or assessments by us. All outstanding shares of our common stock are fully paid and nonassessable.

Preferred Stock

By resolution of the board of directors and without any further vote or action by the stockholders, we may issue preferred stock in one or more series and fix from time to time the number of shares to be included in each such series, and the designations, preferences, qualifications, limitations, restrictions and special or relative rights of the shares of each such series. Our ability to issue preferred stock, while providing flexibility in connection with possible acquisitions and other corporate activities, could adversely affect the voting power of the holders of the common stock and could have the effect of making it more difficult for a person to acquire, or of discouraging a person from attempting to acquire, control of us. We have no present plans to issue any of the preferred stock.

Certain Charter Provisions

Some provisions of our articles of incorporation and bylaws and Pennsylvania law may discourage certain transactions involving a fundamental change of Kulicke & Soffa. For example, our articles of incorporation and bylaws contain provisions that (1) classify the board of directors into four classes, with one class being elected each year, (2) permit the board to issue blank check preferred stock without stockholder approval, as discussed above, and (3) prohibit us from engaging in certain business combinations with a holder of 20% or more of our voting

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securities without super-majority board or stockholder approval. Further, under the Pennsylvania Business Corporation Law, because our bylaws provide for a classified board of directors, stockholders may only remove directors for cause. These provisions and certain other provisions of the Pennsylvania Business Corporation Law could have the effect of delaying, deferring or preventing a fundamental change of Kulicke & Soffa and may adversely affect the voting and other rights of holders of common stock.

Transfer Agent and Registrar

American Stock Transfer and Trust Company is the transfer agent and registrar for our common stock, with offices in New York, New York.

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CERTAIN UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS

The following is a summary of certain U.S. federal income tax considerations relating to the purchase, ownership and disposition of the notes and common stock into which notes may be converted, but does not purport to be a complete analysis of all the potential tax considerations relating thereto. This summary is based on laws, regulations, rulings and decisions now in effect, all of which are subject to change or differing interpretation, possibly with retroactive effect. We have not sought any ruling from the Internal Revenue Service (the "IRS") with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS or a court will agree with those statements and conclusions. This summary does not discuss the effect of the federal estate or gift tax laws (except as set forth below with respect to Non-U.S. Holders) or the tax laws of any applicable foreign, state, local or other jurisdiction.

Except as specifically discussed below with regard to Non-U.S. Holders (as defined below), this summary applies only to beneficial owners that will hold notes and common stock into which notes may be converted as "capital assets" (within the meaning of section 1221 of the Internal Revenue Code of 1986, as amended (the "Code")) and who, for U.S. federal income tax purposes, are (1) individual citizens or residents of the U.S., (2) corporations or other entities created or organized in or under the laws of the U.S. or of any political subdivision thereof, (3) estates, the income of which are subject to U.S. federal income taxation regardless of the source of such income or (4) trusts subject to the primary supervision of a U.S. court and the control of one or more U.S. persons and certain trusts in existence on August 20, 1996 that elect to be treated as United States persons, as such term is defined in the Code ("U.S. Holders"). Persons other than U.S. Holders ("Non-U.S. Holders") are subject to special U.S. federal income tax considerations, some of which are discussed below.

This discussion does not address all the tax considerations applicable to an investor's particular circumstances or to investors that may be subject to special tax rules, such as banks or other financial institutions, holders subject to the alternative minimum tax, tax-exempt organizations, insurance companies, foreign persons or entities (except to the extent specifically set forth below), dealers in securities or currencies, partnerships or other entities classified as partnerships for U.S. federal income tax purposes, U.S. Holders whose financial currency is not the U.S. dollar, persons that will hold notes as a position in a hedging transaction, straddle or conversion transaction for tax purposes or persons deemed to sell notes or common stock under the constructive sale provisions of the Code. This summary discusses the tax considerations applicable to persons who purchase the notes in the initial offering at their "issue price" as defined in section 1273 of the Code and does not discuss the tax considerations applicable to subsequent purchasers of the notes including any entity classified as a partnership for U.S. federal income tax purposes. If a partnership (including any entity classified as a partnership for U.S. federal income tax purposes) is a beneficial owner of a note or the stock into which the notes may be converted, the treatment of a partner in the partnership will generally depend upon the status of the partner and the activities of the partnership. A beneficial owner of notes or the common stock into which notes may be converted that is a partnership, and partners in such partnership, should consult their tax advisors about the U.S. federal income tax

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consequences of the acquisition, ownership and disposition of the notes and the common stock into which the notes may be converted.

THE FOLLOWING DISCUSSION OF CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS IS FOR GENERAL INFORMATION ONLY AND IS NOT TAX ADVICE. ACCORDINGLY, INVESTORS CONSIDERING THE PURCHASE OF NOTES SHOULD CONSULT THEIR OWN TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE UNITED STATES FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER THE FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR FOREIGN TAXING JURISDICTION OR UNDER ANY APPLICABLE TAX TREATY.

U.S. Holders

Taxation of Interest

Interest paid on the notes will be included in the income of a U.S. Holder as ordinary income at the time it is treated as received or accrued, in accordance with such holder's regular method of accounting for U.S. federal income tax purposes. Under Treasury Regulations, the possibility of an additional payment under a note may be disregarded for purposes of determining the amount of interest or original issue discount income to be recognized by a holder in respect of such note (or the timing of such recognition) if the likelihood of the payment, as of the date the notes are issued, is remote. A holder may require us to redeem any and all of his notes in the event of a fundamental change. We intend to take the position that a fundamental change is remote under the Treasury Regulations, and likewise do not intend to treat the possibility of a fundamental change as affecting the yield to maturity of any note. There can be no assurance that the IRS will agree with this position. In the event that such a contingency occurs, the amount and timing of the income that must be recognized by a U.S. Holder of notes would be affected.

Because the stated principal amount of the notes exceeds their issue price by more than a *de minimis* amount, there will be original issue discount with respect to the notes and U.S. Holders will be required for federal income tax purposes to accrue such original issue discount into income in advance of the receipt of cash with respect thereto using a constant yield method under the provisions of the Internal Revenue Code and Treasury Regulations relating to original issue discount.

Sale or Redemption of the Notes

Upon the sale or redemption of a note, a U.S. Holder generally will recognize capital gain or loss equal to the difference between (1) the amount of cash proceeds and the fair market value of any property received on the sale or redemption (except to the extent such amount is attributable to accrued interest income not previously included in income, which will be taxable as ordinary income, or is attributable to accrued interest that was previously included in income, which amount may be received without generating further income) and (2) such holder's adjusted

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tax basis in the note. A U.S. Holder's adjusted tax basis in a note generally will equal the cost of the note to such holder increased by original issue discount if any included in income through the date of disposition, less any principal payments received by the U.S. Holder. The capital gain or loss will be long-term capital gain or loss if the U.S. Holder's holding period in the note is more than one year at the time of sale, exchange or redemption. Long-term capital gains recognized by certain noncorporate U.S. Holders, including individuals, will generally be subject to a maximum rate of federal income tax of 15%. The deductibility of capital losses is subject to limitations.

Conversion of the Notes

A U.S. Holder generally will not recognize any income, gain or loss upon conversion of a note into common stock except with respect to cash received in lieu of a fractional share of common stock. A U.S. Holder's tax basis in the common stock received on conversion of a note will be the same as such holder's adjusted tax basis in the note at the time of conversion (reduced by any basis allocable to a fractional share interest), and the holding period for the common stock received on conversion will generally include the holding period of the note converted.

Cash received in lieu of a fractional share of common stock upon conversion will be treated as a payment in exchange for the fractional share of common stock. Accordingly, the receipt of cash in lieu of a fractional share of common stock generally will result in capital gain or loss (measured by the difference between the cash received for the fractional share and the holder's adjusted tax basis in the fractional share).

Dividends

Distributions, if any, made on the common stock after a conversion generally will be included in the income of a U.S. Holder as dividend income to the extent of our current or accumulated earnings and profits. For a noncorporate U.S. Holder, dividends will be generally subject to tax at the reduced rate applicable to long-term capital gains. A U.S. Holder will be eligible for this reduced rate, however, only if the U.S. Holder holds the common stock for more than 60 days during the 120-day period beginning 60 days before the ex-dividend date. Distributions in excess of our current and accumulated earnings and profits will be treated as a return of capital to the extent of the U.S. Holder's basis in the common stock and thereafter as capital gain.

Holders of convertible debt instruments such as the notes may, in certain circumstances, be deemed to have received distributions of stock if the conversion price of such instruments is adjusted. Adjustments to the conversion price made pursuant to a bona fide reasonable adjustment formula which has the effect of preventing the dilution of the interest of the holders of the debt instruments, however, will generally not be considered to result in a constructive distribution of stock. Certain of the possible adjustments provided in the notes (including, without limitation, adjustments in respect of taxable dividends to our stockholders) will not qualify as being pursuant to a bona fide reasonable adjustment formula. If such adjustments are made, the U.S. Holders of notes will be deemed to have received constructive distributions taxable as dividends to the extent of our current and accumulated earnings and profits even though they have not received any cash or property as a result of such adjustments. In certain

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circumstances, the failure to provide for such an adjustment may result in taxable dividend income to the U.S. Holders of common stock.

Sale of Common Stock

Upon the sale of common stock a U.S. Holder generally will recognize capital gain or loss equal to the difference between (1) the amount of cash and the fair market value of any property received upon the sale or exchange and (2) such U.S. Holder's adjusted tax basis in the common stock. This capital gain or loss will be long-term capital gain or loss if the U.S. Holder's holding period in common stock is more than one year at the time of the sale or exchange.

Special Tax Rules Applicable to Non-U.S. Holders

In general, subject to the discussion below concerning backup withholding:

(a) payments of principal or interest on the notes by us or any paying agent to a beneficial owner of a note that is a Non-U.S. Holder will not be subject to U.S. withholding tax, provided that, in the case of interest, (1) such Non-U.S. Holder does not own, actually or constructively, 10% or more of the total combined voting power of all of our classes of stock entitled to vote within the meaning of section 871(h)(3) of the Code, (2) such Non-U.S. Holder is not a controlled foreign corporation with respect to which we are a related person within the meaning of the Code, (3) such Non-U.S. Holder is not a bank receiving interest described in section 881(c)(3)(A) of the Code, and (4) the certification requirements under section 871(h) or section 881(c) of the Code and Treasury Regulations thereunder (discussed below) are satisfied;

(b) a Non-U.S. Holder of a note or common stock will not be subject to U.S. federal income tax on gains realized on a sale, exchange or other disposition of the note or common stock unless (1) the Non-U.S. Holder is an individual who is present in the U.S. for 183 days or more in the taxable year of sale, exchange or other disposition, and certain conditions are met, (2) such gain is effectively connected with the conduct by the Non-U.S. Holder of a trade or business in the U.S. and, if certain U.S. income tax treaties apply, is attributable to a U.S. permanent establishment maintained by the Non-U.S. Holder, (3) the Non-U.S. Holder is subject to Code provisions applicable to certain U.S. expatriates, or (4) in the case of common stock held by a person who holds more than 5% of such stock, we are or have been, at any time within the shorter of the five-year period preceding such sale or other disposition or the period such Non-U.S. Holder held the common stock, a U.S. real property holding corporation (a USRPHC) for U.S. federal income tax purposes. We do not believe that we currently are a USRPHC or that we will become one in the future; and

(c) interest (including accrued original issue discount) on notes not excluded from U.S. withholding tax as described in (a) above and dividends on common stock upon conversion generally will be a subject to U.S. withholding tax at a 30% rate, except

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where a Non-U.S. Holder provides a properly executed IRS Form W-8 BEN claiming a reduction of or an exemption from withholding under an applicable tax treaty.

To satisfy the certification requirements referred to in (a) (4) above, sections 871(h) and 881(c) of the Code and currently effective Treasury Regulations thereunder require that either (1) the beneficial owner of a note must certify, under penalties of perjury, to us or our paying agent, as the case may be, that such owner is a Non-U.S. Holder and must provide such owner's name and address, and U.S. taxpayer identification number (TIN), if any, or (2) a securities clearing organization, bank or other financial institution that holds customer securities in the ordinary course of its trade or business (a Financial Institution) and holds the note on behalf of the beneficial owner thereof must certify, under penalties of perjury, to us or our paying agent, as the case may be, that such certificate has been received from the beneficial owner and must furnish the payor with a copy thereof. IRS Forms W-8BEN or W-8EXP may be used for purposes of these certifications. Special rules also apply that permit the shifting of primary responsibility for withholding to certain financial intermediaries acting on behalf of beneficial owners.

If a Non-U.S. Holder of a note or common stock is engaged in a trade or business in the U.S. and if interest on the note (including accruals of original issue discount), dividends on the common stock, or gain realized on the sale, exchange or other disposition of the note or common stock is effectively connected with the conduct of that trade or business (and, if certain tax treaties apply, is attributable to a U.S. permanent establishment maintained by the Non-U.S. Holder in the U.S.), the Non-U.S. Holder, although exempt from U.S. withholding tax (provided that the certification requirements discussed in the next sentence are met), will generally be subject to U.S. federal income tax on such interest, dividends or gain on a net income basis in the same manner as if it were a U.S. Holder. In lieu of the certificate described in the immediately preceding paragraphs, such a Non-U.S. Holder will be required to provide us with a properly executed IRS Form W-8ECI or successor form in order to claim an exemption from withholding tax. In addition, if such Non-U.S. Holder is a foreign corporation, it may be subject to a branch profits tax equal to 30% (or such lower rate provided by an applicable treaty) of its effectively connected earnings and profits for the taxable year, subject to certain adjustments.

U.S. Federal Estate Tax

A note held by an individual who at the time of death is not a citizen or resident of the U.S. (as specially defined for U.S. federal estate tax purposes) will not be subject to U.S. federal estate tax if the individual did not actually or constructively own 10% or more of the total combined voting power of all of our classes of stock and, at the time of the individual's death, payments with respect to such note would not have been effectively connected with the conduct by the individual of a trade or business in the U.S. Common stock held by an individual at death will be included in the individual's gross taxable estate for U.S. federal estate tax purposes, regardless of his citizenship or residence, unless an applicable estate tax treaty otherwise applies.

Backup Withholding and Information Reporting

Information returns will be filed with the IRS in connection with interest and dividend payments, as well as, in some cases, proceeds from the sale or other disposition of notes or

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common stock. You may be subject to backup withholding tax on these payments unless you comply with applicable certification procedures. In the case of a Non-U.S. Holder, the certification procedures required to claim the exemption from withholding tax on interest described above will satisfy the certification requirement necessary to avoid backup withholding tax as well. Dividends on our common stock that are paid to Non-U.S. Holders subject to U.S. withholding tax, as described above, generally will be exempt from U.S. backup withholding tax but will be subject to certain information reporting.

The amount of any backup withholding from a payment to you will be allowed as a credit against your U.S. federal income tax liability and may entitle you to a refund provided that the required information is furnished to the IRS.

Table of Contents**SELLING SECURITYHOLDERS**

We originally issued the notes in a private placement in November 2003. The selling securityholders, including their transferees, pledgees or donees or their successors, may from time to time offer and sell under this prospectus or a supplement hereto any or all of the notes and the common stock issuable upon conversion of the notes. In the event that a sale is to be made pursuant to this prospectus by a pledgee or other transferee, we will provide appropriate information regarding such pledgee or transferee by a prospectus supplement or post-effective amendment, if necessary, naming such pledgee or transferee as a selling securityholder.

The following table contains information we received from the selling securityholders on or before February 19, 2004, with respect to the selling securityholders and the principal amount of notes and the underlying common stock beneficially owned by each selling securityholder before the offering and that may be offered using this prospectus.

| NAME | PRINCIPAL AMOUNT AT MATURITY OF NOTES BENEFICIALLY OWNED THAT MAY BE SOLD | PERCENTAGE OF NOTES OUTSTANDING | NUMBER OF SHARES OF COMMON STOCK OWNED PRIOR TO THE OFFERING | NUMBER OF SHARES OF COMMON STOCK THAT MAY BE SOLD ⁽¹⁾ | PERCENTAGE OF COMMON STOCK OUTSTANDING ⁽²⁾ |
|--|--|--|---|---|--|
| American AAdvantage Funds | \$ 300,000 | * | 14,757 | 14,757 | * |
| Associated Electric & Gas Insurance Services Limited | 300,000 | * | 14,757 | 14,757 | * |
| Aventis Pension Master Trust | 335,000 | * | 16,478 | 16,478 | * |
| Barclays Global Investors Diversified Alpha Plus Funds | 1,279,000 | * | 69,343 | 62,912 | * |
| BNP Paribas Equity Strategies, SNC | 1,604,000 | * | 86,202 | 78,898 | * |
| Boilermaker Blacksmith Pension Trust | 1,800,000 | * | 88,539 | 88,539 | * |
| BP Amoco PLC Master Trust | 594,000 | * | 29,218 | 29,218 | * |
| CALAMOS [®] Convertible Growth and Income Fund CALAMOS [®] Investment Trust | 25,800,000 | 12.6% | 1,269,061 | 1,269,061 | 2.4% |
| CALAMOS [®] Convertible Portfolio CALAMOS [®] Advisors Trust | 250,000 | * | 12,297 | 12,297 | * |
| CEMEX Pension Plan | 175,000 | * | 8,608 | 8,608 | * |
| City of Knoxville Pension System | 350,000 | * | 17,216 | 17,216 | * |
| Cooper Neff Convertible Strategies (Cayman) Master Fund, L.P. | 1,588,000 | * | 78,111 | 78,111 | * |
| Credit Suisse First Boston LLC | 12,500,000 | 6.1% | 614,855 | 614,855 | 1.2% |
| CRT Capital Group LLC | 2,000,000 | * | 112,341 | 98,377 | * |

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| NAME | PRINCIPAL AMOUNT AT MATURITY OF NOTES BENEFICIALLY OWNED THAT MAY BE SOLD | PERCENTAGE OF NOTES OUTSTANDING | NUMBER OF SHARES OF COMMON STOCK OWNED PRIOR TO THE OFFERING | NUMBER OF SHARES OF COMMON STOCK THAT MAY BE SOLD ⁽¹⁾ | | PERCENTAGE OF COMMON STOCK OUTSTANDING ⁽²⁾ |
|--|---|---------------------------------------|---|---|------|--|
| | | | | | | |
| DBAG London | 2,500,000 | 1.2% | 122,971 | 122,971 | * | |
| Delta Airlines Master Trust | 1,490,000 | * | 73,291 | 73,291 | * | |
| Delta Pilots Disability and Survivorship Trust | 520,000 | * | 25,578 | 25,578 | * | |
| Deutsche Bank Securities, Inc. | 5,415,000 | 2.6% | 266,355 | 266,355 | * | |
| DKR Saturn Event Driven Holding Fund Ltd. | 7,000,000 | 3.4% | 344,319 | 344,319 | * | |
| DKR Saturn Holding Fund Ltd. | 7,000,000 | 3.4% | 344,319 | 344,319 | * | |
| DKR Soundshore Strategic Holding Fund Ltd. | 2,000,000 | * | 102,377 | 98,377 | * | |
| Dorinco Reinsurance Company | 1,000,000 | * | 49,188 | 49,188 | * | |
| Excelsior Master Fund L. P. | 500,000 | * | 24,594 | 24,594 | * | |
| Forest Fulcrum Fund L. P. | 3,133,000 | 1.5% | 178,578 | 154,107 | * | |
| Forest Global Convertible Fund, Ltd., Class A-5 | 12,178,000 | 5.9% | 666,823 | 599,016 | 1.3% | |
| Forest Multi-Strategy Master Fund SPC, on behalf of its Multi-Strategy Segregated Portfolio | 6,170,000 | 3.0% | 316,304 | 303,492 | * | |
| Geode U.S. Convertible Arbitrage Fund, a series of Geode Investors, LLC | 2,000,000 | * | 98,377 | 98,377 | * | |
| Goldman Sachs & Co. | 36,000,000 | 17.6% | 1,809,711 | 1,770,782 | 3.5% | |
| Grace Brothers, LTD. | 1,600,000 | * | 78,701 | 78,701 | * | |
| HFR RVA Select Performance Master Trust | 256,000 | * | 14,618 | 12,592 | * | |
| Hotel Union & Hotel Industry of Hawaii Pension Plan | 148,000 | * | 7,280 | 7,280 | * | |
| Institutional Benchmarks Master Fund Ltd. | 885,000 | * | 43,532 | 43,532 | * | |
| Jefferies & Company, Inc. | 3,000 | * | 148 | 148 | * | |
| KBC Financial Products USA Inc. | 600,000 | * | 115,348 | 29,513 | * | |
| Kettering Medical Center Funded Depreciation Account | 115,000 | * | 5,657 | 5,657 | * | |
| Knoxville Utilities Board Retirement System | 175,000 | * | 8,608 | 8,608 | * | |
| LLT Limited | 1,023,000 | * | 56,296 | 50,320 | * | |
| Louisiana Workers Compensation Corporation | 450,000 | * | 22,135 | 22,135 | * | |
| Louisiana Workers Compensation #2 | 70,000 | * | 3,443 | 3,443 | * | |
| Lyxor/Convertible Arbitrage Fund Limited | 140,000 | * | 6,886 | 6,886 | * | |
| Lyxor/Forest Fund Limited | 4,379,000 | 2.1% | 234,789 | 215,090 | * | |

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| NAME | PRINCIPAL AMOUNT AT MATURITY OF NOTES BENEFICIALLY OWNED THAT MAY BE SOLD | PERCENTAGE OF NOTES OUTSTANDING | NUMBER OF SHARES OF COMMON STOCK OWNED PRIOR TO THE OFFERING | NUMBER OF SHARES OF COMMON STOCK THAT MAY BE SOLD ⁽¹⁾ | PERCENTAGE OF COMMON STOCK OUTSTANDING ⁽²⁾ |
|---|--|--|---|---|--|
| Port Authority of Allegheny County Retirement and Disability Allowance Plan for the Employees Represented by Local 85 of the Amalgamated Transit Union | 780,000 | * | 38,367 | 38,367 | * |
| Prisma Foundation | 60,000 | * | 2,951 | 2,951 | * |
| Radcliffe SPC, Ltd for and on behalf of the Class A Convertible Crossover Segregated Portfolio | 2,000,000 | * | 98,377 | 98,377 | * |
| RBC Alternative Assets Fund CONV ARB | 350,000 | * | 17,216 | 17,216 | * |
| Relay 11 Holdings Co. | 704,000 | * | 37,566 | 34,629 | * |
| S.A.C. Capital Associates, LLC | 1,000,000 | * | 69,988 | 49,188 | * |
| SCI Endowment Care Common Trust Fund First Union | 50,000 | * | 2,459 | 2,459 | * |
| SCI Endowment Care Common Trust Fund National Fiduciary Services | 200,000 | * | 9,838 | 9,838 | * |
| SCI Endowment Care Common Trust Fund Suntrust | 110,000 | * | 5,411 | 5,411 | * |
| SEI Private Trust Company | 810,000 | * | 76,829 | 39,843 | * |
| Singlehedge U.S. Convertible Arbitrage Fund | 448,000 | * | 22,036 | 22,036 | * |
| Sphinx Convertible Arbitrage SPC | 608,000 | * | 31,578 | 29,907 | * |
| Sphinx Convertible Arb Fund SPC | 237,000 | * | 11,658 | 11,658 | * |
| SPT | 950,000 | * | 46,729 | 46,729 | * |
| SSI Blended Market Neutral L.P. | 296,000 | * | 14,560 | 14,560 | * |
| SSI Hedged Convertible Market Neutral L.P. | 323,000 | * | 15,888 | 15,888 | * |
| Sturgeon Limited | 220,000 | * | 10,822 | 10,822 | * |
| The California Wellness Foundation | 540,000 | * | 26,562 | 26,562 | * |
| The Dow Chemical Company Employees Retirement Plan | 3,000,000 | * | 147,565 | 147,565 | * |
| The Fondren Foundation | 190,000 | * | 9,346 | 9,346 | * |

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| NAME | PRINCIPAL AMOUNT AT MATURITY OF NOTES BENEFICIALLY OWNED THAT MAY BE SOLD | PERCENTAGE OF NOTES OUTSTANDING | NUMBER OF SHARES OF COMMON STOCK OWNED PRIOR TO THE OFFERING | NUMBER OF SHARES OF COMMON STOCK THAT MAY BE SOLD ⁽¹⁾ | PERCENTAGE OF COMMON STOCK OUTSTANDING ⁽²⁾ |
|--|--|--|---|---|--|
| UBS O Connor LLC F/B/O | 1,900,000 | * | 93,458 | 93,458 | * |
| O Connor Global Convertible Arbitrage Master Ltd | | | | | |
| Union Carbide Retirement Account | 1,480,000 | * | 72,799 | 72,799 | * |
| United Food and Commercial Workers Local 1262 and Employers Pension Fund | 810,000 | * | 39,843 | 39,843 | * |
| Univest Multi-Strategy Fund CONV ARB | 350,000 | * | 17,216 | 17,216 | * |
| Viacom Inc. Pension Plan Master Trust | 14,000 | * | 689 | 689 | * |
| Wachovia Bank National Association | 5,000,000 | 2.4% | 245,942 | 245,942 | * |
| Wachovia Capital Markets LLC | 3,100,000 | 1.5% | 152,484 | 152,484 | * |
| Wachovia Securities International LTD | 4,000,000 | 2.0% | 196,754 | 196,754 | * |
| Waterstone Market Neutral Fund, LP | 1,219,000 | * | 59,961 | 59,961 | * |
| Waterstone Market Neutral Offshore Fund, Ltd. | 5,917,000 | 2.9% | 291,048 | 291,048 | * |
| Waterstone Market Neutral MAC51, Ltd | 1,514,000 | * | 74,471 | 74,471 | * |
| WPG Convertible Arbitrage Overseas Master Fund | 700,000 | * | 34,432 | 34,432 | * |
| WPG MSA Convertible Arbitrage Fund | 100,000 | * | 4,919 | 4,919 | * |
| Zurich Institutional Benchmarks Master Fund Ltd. | 2,270,000 | 1.1% | 118,241 | 111,658 | * |

* Less than 1%

⁽¹⁾ Assumes conversion of all of the holder's notes at a conversion rate of 49.1884 shares per \$1,000 principal amount of notes. However, this conversion price is subject to adjustment as described under "Description of Notes - Conversion of"

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the Notes. As a result, the amount of common stock issuable upon conversion of the notes may increase or decrease in the future.

- (2) Calculated based on Rule 13d-3(d)(i) of the Exchange Act using 50,673,882 shares of common stock outstanding as of February 13, 2004. In calculating this amount, we treated as outstanding the number of shares of common stock issuable upon conversion of all of that particular holder's notes. However, we did not assume the conversion of any other holder's notes.

We prepared this table based on the information supplied to us by the selling securityholders named in the table.

The selling securityholders listed in the above table may have sold or transferred, in transactions exempt from the registration requirements of the Securities Act, some or all of their notes since the date on which the information in the above table is presented. Information about the selling securityholders may change over time. Any changed information will be set forth to the extent provided to us by the selling securityholders, in prospectus supplements, if and when necessary.

Because the selling securityholders may offer all or some of their notes or the underlying common stock from time to time, we cannot estimate the amount of the notes or underlying common stock that will be held by the selling securityholders upon the termination of any particular offering. See Plan of Distribution.

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PLAN OF DISTRIBUTION

We are registering the notes and the underlying common stock to allow the selling securityholders and their successors, including their transferees, pledgees and donees and their successors, to sell these securities to the public from time to time after the date of this prospectus. The selling securityholders may sell the securities directly or through underwriters, broker-dealers or agents. If the selling securityholders sell the securities through underwriters or broker-dealers, the selling securityholders will be responsible for underwriting discounts or commissions or agents' commissions. We have agreed to pay substantially all of the expenses incidental to the registration, offering and sale of the securities to the public other than commissions, fees and discounts of underwriters, brokers, dealers and agents.

The total proceeds to the selling securityholders from selling the securities will be the purchase price of the securities, less any discounts and commissions paid by the selling securityholders. We will not receive any of the proceeds from the sale of the securities offered by this prospectus.

The SEC may deem the selling securityholders and any broker-dealers or agents who participate in the distribution of the securities to be underwriters. As a result, the SEC may deem any profits the selling securityholders make by selling the securities and any discounts, commissions or concessions received by any broker-dealers or agents to be underwriting discounts and commissions under the Securities Act. Selling securityholders who are underwriters will be subject to the prospectus delivery requirements of the Securities Act and may also be subject to liabilities under the securities laws, including Sections 11, 12 and 17 of the Securities Act and Rule 10b-5 under the Exchange Act. To our knowledge, there are currently no plans, arrangements or understandings between any selling securityholders and any underwriter, broker-dealer or agent regarding the sale of the securities.

The selling securityholders and any other person who participates in distributing the securities will be subject to the Exchange Act. The Exchange Act rules include Regulation M, which may limit the timing of purchases and sales of any of the securities by the selling securityholders and any other person. In addition, Regulation M may restrict the ability of any person engaged in the distribution of the securities to engage in market-making activities with respect to the particular securities being distributed for a period of up to five business days before beginning to distribute the securities. This may affect the securities' marketability and the ability of any person or entity to engage in market-making activities with respect to the securities.

The selling securityholders may sell the securities in one or more transactions at:

fixed prices;

prevailing market prices at the time of sale;

varying prices determined at the time of sale; or

negotiated prices.

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These sales may be effected in transactions:

on any national securities exchange or quotation service on which the securities are listed or quoted at the time of the sale, including the Nasdaq National Market in the case of the common stock;

in the over-the-counter market;

in transactions other than transactions on national securities exchanges, quotation services or in the over-the-counter market; or

through the writing of options.

These transactions may include block transactions or crosses. Crosses are transactions in which the same broker acts as an agent on both sides of the transaction.

In connection with sales of the securities or otherwise, any selling securityholder may:

enter into hedging transactions with broker-dealers, who may in turn engage in short sales of the securities in the course of hedging the positions they assume;

sell the securities short and deliver the securities to close out their short positions; or

loan or pledge the securities to broker-dealers, who may in turn sell the securities.

We cannot assure you that any selling securityholder will sell any or all of the securities using this prospectus. In addition, any securities covered by this prospectus that qualify for sale under Rule 144 or Rule 144A of the Securities Act may be sold under Rule 144 or Rule 144A rather than under this prospectus. The selling securityholders also may transfer, devise or gift the securities by other means not described in this prospectus.

To comply with the securities laws of some states, if applicable, the selling securityholders may only sell the securities in these jurisdictions through registered or licensed brokers or dealers.

Our common stock trades on the Nasdaq National Market under the symbol KLIC. We do not intend to apply for listing of the notes on any securities exchange or for quotation through Nasdaq. Accordingly, we cannot assure you that selling securityholders will be able to sell the notes or that any trading market for the notes will develop. See Risk Factors. In certain circumstances this registration statement may not be used to resell the notes and the common stock issuable upon their conversion; there is no prior public market for the notes, if an active trading market does not develop for the notes you may not be able to resell them.

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With respect to a particular offering of the securities, to the extent required, we will file an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement of which this prospectus is a part, disclosing the following information:

the specific notes or common stock to be offered and sold;

the names of the selling securityholders;

the respective purchase prices and public offering prices and other material terms of the offering;

the names of any participating agents, broker-dealers or underwriters; and

any applicable commissions, discounts, concessions and other items constituting compensation from the selling securityholders.

The registration rights agreement filed as an exhibit to this registration statement provides that we and the selling securityholders will indemnify each other and each other's directors, officers and controlling persons against specified liabilities, including liabilities under the Securities Act, or that we will be entitled to contribution from each other in connection with these liabilities.

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LEGAL MATTERS

Drinker Biddle & Reath LLP, Philadelphia, Pennsylvania will provide us with an opinion as to the validity of our issuance of the securities offered by this prospectus and the enforceability of the indenture under which the notes were issued.

EXPERTS

The consolidated financial statements of Kulicke and Soffa Industries, Inc. incorporated in this prospectus by reference to our Annual Report on Form 10-K for the year ended September 30, 2003 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements, and other information with the SEC. These reports, proxy statements, and other information concerning us can be read and copied at the SEC's Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. Please call the SEC at 1-800-SEC 0330 for further information on the Public Reference Room. The SEC maintains an internet site at <http://www.sec.gov> that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, including us. Our common stock is listed on the Nasdaq National Market under the symbol KLIC. These reports, proxy statements, and other information are also available at the following Nasdaq address: Nasdaq Operations, 1735 K Street, N.W., Washington, D.C. 20006. We maintain a website with the address www.kns.com.

Any information in documents incorporated by reference in this is considered part of this prospectus. We incorporate by reference the documents listed below which have been filed with the SEC:

Our Annual Report on Form 10-K for our fiscal year ended September 30, 2003;

Our Quarterly Report on Form 10-Q for our fiscal quarter ended December 31, 2003;

Our Current Reports on Form 8-K filed on November 20, 2003, November 21, 2003, December 5, 2003, December 11, 2003, January 6, 2004, January 9, 2004 and January 21, 2004;

The description of our common stock contained in our registration statement on Form 8-A12G/A filed on July 17, 2000; and

Any future filings we make under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, including any filings after the date of this registration statement until we terminate this offering.

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Any statement contained in a document incorporated by reference in this prospectus will be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or in any subsequently filed document that is incorporated by reference modifies or supersedes such statement. Any statement that is modified or superseded shall not, except as so modified or superseded, constitute a part of this prospectus.

We will provide without charge, upon written or oral request, a copy of any or all of the documents which are incorporated by reference in this prospectus, other than exhibits which are

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specifically incorporated by reference into such documents. You should direct written or telephone requests to Investor Relations Department, Kulicke and Soffa Industries, Inc., 2101 Blair Mill Road, Willow Grove, Pennsylvania 19090, telephone (215) 784-6000.

Our logo appearing on the front and back covers of this prospectus and Maxum, Maxum Plus, Nu-Tek, WaferPRO, Triton RDA, and DuraPlus are trademarks of Kulicke and Soffa Industries, Inc. Other brands, names and trademarks contained in this prospectus are the property of their respective owners.

You should rely only on the information included or incorporated by reference in this prospectus and in the prospectus supplement, if any. We have not authorized anyone else to provide you with different information. We are only offering these securities only in those states where the offer is permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front cover hereof. Information on our website is not part of this prospectus.