TOWER SEMICONDUCTOR LTD

Form F-3

November 14, 2003

AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON NOVEMBER 14, 2003

**REGISTRATION STATEMENT NO. 333-**

#### SECURITIES AND EXCHANGE COMMISSION

**WASHINGTON, D.C. 20549** 

FORM F-3

REGISTRATION STATEMENT **UNDER** THE SECURITIES ACT OF 1933

TOWER SEMICONDUCTOR LTD.

(Exact name of registrant as specified in its charter)

Israel

(State or other jurisdiction of incorporation or organization)

3674

(Primary Standard Industrial Classification Code Number) Not applicable

(I.R.S. Employer Identification Number)

**Ramat Gavriel Industrial Park** P.O. Box 619 Migdal Haemek, Israel, 23105 972-4-650-6611

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Tower Semiconductor USA** 2350 Mission College Blvd., Suite 500 Santa Clara, California 95054 Tel: 408-327-8900

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(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, please check the following box:

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box:

# **CALCULATION OF REGISTRATION FEE**

		Proposed	Proposed	
		maximum	maximum	
Title of each class of		offering	aggregate	
securities	Amount to be	price per	offering	Amount of
to be registered	registered (1)	share (2)	price (2)	registration fee
Ordinary Shares	13,800,000	\$6.95	\$95,910,000	\$7,759.12

(1)Includes 1,800,000 ordinary shares issuable upon exercise of the underwriters' over-allotment option.

(2) Estimated solely for purposes of calculating the registration fee pursuant to Rule 457(c) of the Securities Act of 1933, as amended, based on the average of the reported bid and ask prices of the ordinary shares on the Nasdaq National Market on November 11, 2003.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE SECURITIES AND EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A) MAY DETERMINE.

Subject to Completion, Dated November , 2003

The information in this prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities, and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

12,000,000 Shares

**Ordinary Shares** 

\$ per share

Tower Semiconductor Ltd. is offering 12,000,000 ordinary shares. The ordinary shares are listed on both the Nasdaq National Market and on the Tel Aviv Stock Exchange in Israel under the symbol "TSEM." On November 12, 2003, the last reported sale prices of the ordinary shares were \$7.59 per share on the Nasdaq National Market and NIS 33.31 per share on the Tel Aviv Stock Exchange.

Investing in the ordinary shares involves risks. See "Risk Factors" beginning on page 9.

	Per	
	Share	Total
Price to the public	\$	\$
Underwriting discount	\$	\$
Proceeds to Tower (before expenses)	\$	\$

We have granted an over-allotment option to the underwriters. Under this option, the underwriters may elect to purchase a maximum of 1,800,000 additional shares from us within 30-days following the date of this prospectus to cover over-allotments.

None of the Securities and Exchange Commission, the Israel Securities Authority or 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.

CIBC World Markets

U.S. Bancorp Piper Jaffray

C.E. Unterberg, Towbin

The date of this prospectus is , 2003

[Description of inside front cover graphic]

At the top of the page in a large font is the following text:

Flexible world-class semiconductor IC design and manufacturing services

At the cutting-edge of specialty process technologies

Providing superior, differentiated support for our customers' specialty foundry needs

The inside front cover of the prospectus has an aerial photo of the company's Fab 1 and Fab 2 manufacturing facilities in Migdal Haemek, Israel.

Beneath it is a photo of the manufacturing floor of the Fab 2 facility.

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microFLASH® is a registered trademark of Tower, and N-ROM<sup>TM</sup> is a trademark of Saifun Semiconductors Ltd. Manufacturing capacity is a function of the process technology and product mix being manufactured because certain processes require more processing steps than others. All information in this prospectus with respect to the wafer start capacity of our manufacturing facilities is based upon our estimate of the effectiveness of the manufacturing equipment and processes in use or expected to be in use during a period and the actual or expected process technology mix for such period. Unless otherwise specifically stated, all references in this prospectus to "wafers" in the context of capacity in Fab 1 are to 150-mm wafers and in Fab 2 are to 200-mm wafers.

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### **Prospectus Summary**

This summary highlights information contained in other parts of this prospectus. Because it is a summary, it does not contain all of the information that you should consider before investing in the ordinary shares. You should read the entire prospectus carefully. The terms "we," "us" and "Tower" mean Tower Semiconductor Ltd. and its consolidated subsidiary. Unless otherwise stated, all information contained in this prospectus assumes no exercise of the over-allotment option granted to the underwriters.

#### **Tower Semiconductor**

We are a pure-play independent wafer foundry dedicated to the manufacture of integrated circuits, or ICs, using complementary metal oxide semiconductor, or CMOS, process technology. We manufacture ICs with geometries ranging from 1.0 to 0.35 microns at our 150-mm fabrication facility, or Fab 1, and 0.18 microns at our recently constructed 200-mm fabrication facility, or Fab 2. We plan to initiate volume production in geometries of 0.13 microns at Fab 2 during 2005. At Fab 1, we have expanded capacity to approximately 16,000 wafer starts per month. We began volume production at Fab 2 during the third quarter of 2003, and by year end we anticipate that Fab 2 will have production capacity of 8,500 wafer starts per month. We expect the production ramp to be completed by the end of 2006, at which time Fab 2 is expected to have the capacity to produce 33,000 wafer starts per month. While we expect to continue to operate Fab 1, we expect Fab 2 to form the core of our future business. ICs manufactured by us are incorporated into a wide range of products in diverse markets, including consumer electronics, personal computer and office equipment, communications, automotive, professional photography and medical device products.

With increased demand for new semiconductor applications, particularly in the consumer sector, the semiconductor industry is now recovering from its worst downturn in history. According to the Semiconductor Industry Association, worldwide sales of semiconductors increased 6.5% to \$14.4 billion in September 2003, up from \$13.6 billion in

August 2003, representing the seventh consecutive monthly increase. The consumer sector, which currently represents 17% of semiconductor demand, is expanding worldwide with new applications and multi-functional devices, including those that incorporate technologies in which we specialize: CMOS image sensors, embedded flash and mixed-signal ICs.

#### Market Opportunity

We believe that the key factors that drive growth in our business include:

- the increasing demand for complex ICs, which creates an expanding market for outsourced manufacturing;
- the growing popularity of applications and products that use technologies in which we focus on, including CMOS image sensors, embedded flash and mixed-signal ICs;
- the incentive of SanDisk, Alliance Semiconductor, Macronix and QuickLogic (which we refer to as our "wafer partners") to utilize their right to purchase up to approximately 50% of the capacity of our Fab 2 facility;
- the limited number of independent foundries due to the prohibitively high cost of building new fabrication facilities, or fabs, which requires high capacity utilization to ensure that fixed costs are absorbed; and
- the current, seven-consecutive-month upswing in semiconductor demand, which we believe will result in a capacity shortage at leading Asian foundries and create an opportunity for us to obtain new customers. Two leading Taiwanese foundries recently reported that they both expect to achieve overall utilization rates exceeding 90% in the fourth quarter of 2003. We believe that we are particularly well positioned to benefit from this situation as we are one of a few semiconductor manufacturers that invested in new capacity during the recent industry downturn. Target Markets

We focus on the emerging opportunities surrounding CMOS image sensors, embedded flash and mixed-signal ICs where we believe we have strong expertise and proven experience. In

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addition to the high margins that these products generate, we are focusing on these markets because of their large size and high growth rates. According to In-Stat/MDR, a market research firm, the CMOS image sensor market is expected to grow from \$184 million in 2002 to \$547 million in 2007, representing a five-year compound annual growth rate of 24%. Semico Research, a market research firm, forecasts that embedded flash in microcontrollers will grow from \$4.0 billion in 2002 to \$17.0 billion in 2007, representing a five-year compound annual growth rate of 34%. According to Dataquest, a market research firm, the worldwide general-purpose analog and mixed-signal IC market was \$9.3 billion in 2002 and is projected to grow to \$17.6 billion in 2007, representing a five-year compound annual growth rate of 14%. With our advanced manufacturing technologies and service capabilities, we have established a strong position in these markets with customers which are industry leaders, including Kodak, Motorola, National Semiconductor, SanDisk and Zoran.

#### Strategy

The key elements of our strategy include:

Establishing Leading Market Share for Specialized, High Growth Applications. These applications include CMOS image sensors for products such as digital still cameras and camera-equipped cell phones; embedded flash in microcontrollers; and mixed-signal ICs in cell phones, PDAs and DSL modems.

Pursuing a Partnership Business Model. We believe that the use of our customers as an equity financing source, such as in the case of our wafer partners, will strengthen our long-term relationships with these customers, as our growth objectives are closely aligned. In connection with their investment in us, we granted our existing wafer partners a right to purchase approximately 50% of the capacity of our Fab 2 facility, and we believe that their ownership interest provides them added incentive to utilize this capacity.

Maintaining Our Commitment to Customer Service. We place significant emphasis on providing world-class customer service, as well as engineering support and execution of complex process and product transfers, while maintaining reduced cycle times and higher product yields. We believe that our customer service has helped us differentiate ourselves from our larger competitors, as demonstrated by Motorola naming us "Foundry of the Year" in 1999 and awarding us "Gold Supplier" status in 2000, 2001 and 2002. By working closely with our customers and helping them achieve their objectives, we are able to deliver our service offerings at lower cost and with shorter time-to-market than our competitors.

Expanding Our Technological Expertise through Licensing and Joint Development Efforts with Leading Technology Companies. In addition to our independent research and development resources, we have expanded our core strengths in CMOS image sensors, embedded flash and mixed-signal technologies by combining our proprietary technologies with leading technology companies, such as Matsushita, Motorola and Toshiba.

Enhancing Our Global Sales and Marketing Efforts. We have recently significantly increased our global sales and marketing efforts in order to establish worldwide coverage to support the ramp-up of our Fab 2 0.18-micron process technology service offering.

Maximizing Our Capacity Utilization. We seek to maximize capacity utilization by attracting new customers and rapidly transitioning our capabilities to high-margin advanced technologies.

• Becoming a Preferred Second-Source Foundry Service Provider. As foundry utilization rates peak and available capacity decreases, we aim to attract new customers as part of their risk diversification strategy by becoming their preferred alternative or second-source provider of foundry services.

#### Our Address

Our manufacturing facilities and executive offices are located in the Ramat Gavriel Industrial Park, Post Office Box 619, Migdal Haemek, 23105 Israel, and our telephone number is 972-4-650-6611.

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The Offering

Ordinary shares offered by us
Ordinary shares to be outstanding after
the offering
Use of proceeds

12,000,000 shares 60,779,146 shares (1)(2)

We expect to use the net proceeds from this offering to finance the further ramp-up of Fab 2 and for marketing

expenses for the sale of our products and services as well as for working capital and other general corporate purposes.

Risk factors

See "Risk Factors" and the other information included in this prospectus for a discussion of factors you should carefully consider before deciding to invest in our ordinary shares.

Nasdaq National Market and Tel Aviv Stock Exchange symbols **TSEM** 

- (1) The number of ordinary shares to be outstanding after this offering is based on the outstanding shares as of September 30, 2003. This information excludes (i) 6,777,520 ordinary shares issuable upon exercise of options granted to employees and directors at a weighted average exercise price of \$7.90; (ii) up to 2,697,068 ordinary shares issuable upon conversion of unsecured, subordinated convertible debentures in the principal amount of NIS 113,475,535 (or \$25.6 million), which are convertible through December 31, 2008 at a conversion price of NIS 41 per share (or \$9.79), (linked to the Israel Consumer Price Index); (iii) 2,211,596 ordinary shares issuable upon exercise of options at an exercise price of NIS 41.12 per share (or \$9.79), linked to the Israeli Consumer Price Index (\$9.32 as of September 30, 2003); (iv) 3,594,082 ordinary shares issuable upon exercise of warrants with an exercise price of \$7.50; (v) 1,296,596 ordinary shares issuable upon the exercise of warrants issued to our banks in connection with our credit facility with an exercise price of \$6.17 per share; (vi) 2,916,951 ordinary shares issuable to our Fab 2 investors in connection with the unpaid portion of the initial installment of the fifth milestone payment, which are expected to be issued in December 2003 at a purchase price of \$2.983 per share and approximately 2.2 million shares issuable in connection with the second installment of the fifth milestone payment assuming a purchase price of \$7.59 per share (see "Certain Transactions — Amendment to Fifth Milestone Payment Schedule"); and (vii) 58,906 ordinary shares issuable upon exercise of warrants to be issued to ICTech as a commitment fee in connection with the arrangements described in "Material Agreements — Credit Facility" with an exercise price of \$6.17 per share and exercisable until November 2008.
- (2)This information excludes the following potential dilutive issuances of securities pursuant to our credit facility and agreements with our wafer partners and with ICTech, which cannot be calculated as of the date of the prospectus since the number of shares issuable will depend upon future transactions in which we may engage (i) ordinary shares issuable upon conversion of up to \$46.9 million in wafer prepayment credits which we have issued our wafer partners as of September 30, 2003 (see "Certain Transactions Amendment to Fifth Milestone Payment Schedule"); (ii) ordinary shares issuable to our wafer partners upon conversion of their remaining wafer credits issued in connection with their fourth milestone payment, as well as shares we may issue to our other shareholders under certain circumstances (see "Certain Transactions Amendment to Fifth Milestone Payment Schedule"); (iii) ordinary shares issuable upon exercise of warrants issued to ICTech and our banks in the event that we are required by our banks to complete a rights offering in connection with the arrangements described at "Material Agreements Credit Facility;" and (iv) ordinary shares issuable upon conversion of securities we may be required to issue in connection with the rights offering and outside investor provisions of the arrangements described at "Material Agreements Credit Facility."

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### Summary Consolidated Financial Data

You should read the data set forth below in conjunction with our consolidated financial statements and related notes, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and other information appearing elsewhere in this prospectus. The following data has been presented in accordance with Israeli GAAP. Statements of operations and selected operations data in accordance with US GAAP would not have materially differed from respective data in accordance with Israeli GAAP.

		nths Ended ober 30,	Year I	ber 31,	
	2003	2002	2002	2001	2000
		(in thousan	ds, except per	r share data)	
<b>Selected Operations Data:</b>					
Sales	\$ 41,545	\$ 36,229	\$ 51,801	\$ 52,372	\$104,775
Gross profit (loss)	(34,271)	(13,727)	(15,221)	(24,361)	15,988
Research and development	12,551	10,184	17,031	9,556	8,965
Marketing, general and administrative	17,064	11,807	17,091	14,489	11,428
Operating loss	(63,886)	(35,718)	(49,343)	(48,406)	(4,405)
Loss for the period	\$ (68,266)	\$ (37,818)	\$ (51,402)	\$ (38,522)	\$ (3,989)
Basic loss per ordinary share	\$ (1.49)	\$ (1.34)	\$ (1.63)	\$ (1.92)	\$ (0.26)
Other Financial Data:					
Depreciation and amortization	\$ 30,386	\$ 14,402	\$ 18,821	\$ 21,721	\$ 25,917
Capital expenditures, before					
Investment Center grants	147,394	156,564	243,431	364,347	79,060

We have presented the unaudited consolidated balance sheet data as of September 30, 2003 on an actual basis and on an as-adjusted basis to reflect the sale of 12,000,000 ordinary shares by us in this offering and our receipt of \$ million in estimated net proceeds, after deducting the estimated underwriting discount and commissions and the estimated offering expenses that we expect to pay in connection with this offering.

	As of September 30, 2003	
		As
	Actual	Adjusted
	(in thou	sands)
Consolidated Balance Sheet Data in accordance with Israeli GAAP:		
Cash and cash equivalents, including short-term deposits and designated		
cash	\$ 8,377	
Working capital, net	(28,172)	
Property and equipment	576,425	
Total assets	750,612	
Long-term debt	347,000	
Shareholders' equity	246,117	

#### Risk Factors

You should carefully consider the following factors, together with all of the other information in this prospectus before deciding to invest in the shares.

#### Risks Affecting Our Business

# If we do not complete the equipment installation, technology transfer and ramp-up of production in Fab 2, our business will be materially adversely affected.

We have completed the construction of Fab 2 but not the acquisition, installation and equipping necessary for production at our planned full capacity of 33,000 200-mm wafer starts per month, which we expect to reach by the end of 2006. We will also need to transfer 0.13 micron technology from Motorola to Fab 2 and develop new process technologies for Fab 2 in order to suit our customers' needs. The ramp-up of Fab 2 is a substantial and complex project. We may experience difficulties customary for projects of this type in the installation, functionality and operation of the Fab 2 equipment during its early manufacturing period. Failures or delays in obtaining and installing the necessary equipment, technology and other resources may delay the completion of the ramp-up of Fab 2 and add to its cost, which would have a material adverse effect on our business and results of operations.

# If we do not have sufficient funds to complete the Fab 2 project, our business will be materially adversely affected.

We estimate that we will need an additional approximately \$270 million to finance the total cost of Fab 2 until we reach full capacity (including cash flow from operations and assuming proceeds from this offering of \$85.6 million). Additionally, the actual cost of Fab 2 may exceed our estimates. If we cannot successfully raise sufficient funding to complete the ramp-up to 33,000 wafer starts per month, we will be required to scale back our equipment purchases and capacity forecasts, and, as a result, we will not fully utilize the substantial investment made in constructing Fab 2, which will adversely affect our financial results.

# The cyclical nature of the semiconductor industry and the resulting periodic overcapacity have adversely affected our business in the past, resulting in a history of losses; downward price pressure may seriously harm our business.

The semiconductor industry has historically been highly cyclical. Historically, companies in the semiconductor industry have expanded aggressively during periods of increased demand. This expansion has frequently resulted in overcapacity and excess inventories, leading to rapid erosion of average sale prices. We expect this pattern to repeat itself in the future. Our operating results for 1996 through 1999 were harmed by a downturn in the semiconductor market that resulted in reduced orders, underutilization of our facility and severe price erosion. Although utilization and average sale prices improved during 2000, demand slowed in the overall semiconductor market and in many of our end product markets beginning in the fourth quarter of 2000. This slowing in demand deepened in 2001 and continued in 2002. While sales increased in each of the first three quarters of 2002, and have continued to improve through the first half of 2003, we experienced a decrease in the sales of Fab 1 in the third quarter of 2003. Although the semiconductor industry appears to be recovering, we cannot be assured that this overall recovery will continue or that we will benefit from it through an increase in demand for our products, resulting in an improvement in our financial results.

We have a recent history of operating losses and expect to operate at a loss through the forseeable future. Our facilities must operate at high utilization rate for us to be profitable.

We operated at a loss for the last five years and expect to operate at a loss for the foreseeable future. Our facility operated significantly below capacity from 1996 through 2003. Because fixed costs represent a substantial portion of the operating costs of semiconductor manufacturing operations, we must operate our facilities at a high utilization rate. We are currently operating Fab 1 at a capacity utilization of approximately 50%. During the third quarter of 2003, we completed the construction of Fab 2, the qualification of process technologies and the start of ramp-up of production. These technologies and other Fab 2 assets have started to incur significant operating expenses as well as depreciation and amortization expenses.

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### We may not be able to capitalize on an increase in demand for foundry services.

We are ramping-up Fab 2 based on our expectations of customer demand. In order for demand for our wafer fabrication services to increase, the markets for the end products using these services must develop and expand. For example, the success of our imaging process technologies will depend, in part, on the growth of markets for digital photography and video. Because our services may be used in many new applications, it is difficult to forecast demand. If demand is lower than expected, we may have excess capacity, which may adversely affect our financial results. If demand is higher than expected, we may be unable to fill all of the orders we receive, which may result in the loss of customers.

# If we do not meet conditions to receive the Israeli government grants and tax benefits approved for Fab 2, we may be required to seek alternative financing sources.

In connection with Fab 2, we received approval for grants and tax benefits from the Investment Center of the government of Israel under its Approved Enterprise Program. Under the terms of the approval, we are eligible to receive grants of 20% of up to \$1.25 billion invested in Fab 2 plant and equipment, or an aggregate of up to \$250 million. As of September 30, 2003, we have received approximately \$112 million in grants from the Investment Center. The Investment Center requires that we complete our Fab 2 investments and achieve full production capacity of 33,000 wafer starts per month by the end of 2005, and Israeli law limits the ability of the Investment Center to extend this time limitation. We have notified the Investment Center of our revised investment schedule and lower than initially projected expectations for Fab 2 sales; this information is currently being evaluated by the Investment Center. While the Investment Center has continued to fund the grant to us under our Approved Enterprise Program, we cannot assure you that it will continue to do so if it does not accept our revised investment schedule. In addition, even if the Investment Center accepts our revised schedule, any failure by us to meet the conditions of our grant may result in the cancellation of all or a portion of our grants and in the Investment Center, requiring us to repay all or a portion of previous grants. If this were to happen, we would be required to seek alternative financing sources to complete the ramp-up of Fab 2, which may have an adverse effect on our operations.

#### If we do not attract additional customers, our business will be adversely affected.

For the first nine months of 2003, approximately 64% of our business was generated by four customers, National Semiconductor (26%), Motorola, (15%), FillFactory (12%) and SanDisk (11%). We expect to continue to receive a significant portion of our revenue from a limited number of customers. Loss or cancellation of business from, or decreases in, the sales volume or sales prices to these customers could seriously harm our financial results and

business. Since the sales cycle for our services typically exceeds one year, if our customers order significantly fewer wafers than forecasted, we will have excess capacity that we may not be able to sell in a short period of time, resulting in lower utilization of our facilities. We may have to reduce prices in order to try to sell the excess capacity. In addition to the revenue loss that could result from unused capacity or lower sales prices, we might have difficulty adjusting our costs to reflect the lower revenues, which could harm our financial results.

#### If we do not receive orders from our wafer partners and technology providers we may have excess capacity.

We have entered into wafer partner agreements and agreements with technology providers under which we have committed a portion of our Fab 2 capacity for future orders from these parties. These parties are generally not obligated to utilize or pay for all or any portion of their allocated capacity, and generally must confirm their orders to us only three months in advance. If these parties do not place orders with us, we may have unutilized capacity, which we may be unable to fill and could harm our financial results.

If we do not maintain and develop our technology processes and services, we will lose customers and may not be able to attract new ones.

The semiconductor market is characterized by rapid change, including the following:

- rapid technological developments;
  - evolving industry standards;
- changes in customer requirements;

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• frequent new product introductions and enhancements; and short product life cycles with declining prices as products mature.

In order to maintain our current customer base and attract new customers, we must continue to advance our manufacturing process technologies. We are developing and introducing to production specialized process technologies. We have also licensed 0.18-micron technology from Toshiba and have begun the transfer of 0.13-micron technology from Motorola. We are also working on other independent and joint development projects of technologies for Fab 2. Our ability to achieve and maintain profitable operations depends on the successful development and introduction to production of these processes.

#### If we do not compete effectively, we will lose business to our competitors.

The semiconductor foundry industry is highly competitive. We compete with other dedicated foundries, including new foundries based in China, Korea and Malaysia, and with integrated semiconductor and end-product manufacturers that produce integrated circuits for their own use and/or allocate a portion of their manufacturing capacity to foundry operations. Many of our competitors have one or more of the following competitive advantages over us:

- greater manufacturing capacity;
- multiple and more advanced manufacturing facilities;
  - more advanced technological capabilities;
  - a more diverse and established customer base;
- greater financial, marketing, distribution and other resources; and/or
  - a better cost structure.

If we do not compete effectively, our results of operations will be materially affected.

#### We have a large amount of debt, which could have significant negative consequences.

As of September 30, 2003, we had \$351 million of bank debt. Our current and future indebtedness could have significant negative consequences, including:

requiring the dedication of a substantial portion of our expected cash flow from operations to service our indebtedness;

- increasing our vulnerability to general adverse economic and industry conditions;
  - limiting our ability to obtain additional financing;

4 imiting our flexibility in planning for, or reacting to, changes in our business and the industry in which we compete;

placing us at competitive disadvantage to less leveraged competitors and competitors that have better access to capital resources; and

• affecting our abilities to make interest payments on our indebtedness.

If we fail to satisfy the covenants set forth in our amended credit facility, our banks will be able to call our loans.

Our credit facility requires that we maintain certain financial, capital raising and production milestone covenants. In the past, we failed to meet certain of the requirements of the credit facility. We cannot assure you that we will be successful in satisfying these covenants in the future. Any failure by us to observe covenants or satisfy conditions under the credit facility, some of which are not in our control, may result in the banks accelerating our obligations, which would obligate us to immediately repay all loans made by the banks plus penalties, and the banks would be entitled to exercise the remedies available to them under the credit facility, including enforcement of their lien against all our assets. This would have a material adverse effect on our company.

#### Israeli banking laws may impose restrictions on the total debt that we may borrow from our banks.

Pursuant to a recent amendment to a directive published by the Israel Supervisor of Banks, which becomes effective on March 31, 2004, we may be deemed part of a group of borrowers comprised of the Ofer Brothers Group, The Israel Corporation, other companies which are also included in such group of borrowers pursuant to the directive, including companies under the control or deemed control of these entities. The directive provides that any entity that is included within a group of borrowers, to

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which the amount of debt financing that has been extended from a bank amounts to 30% of such bank's capital, or that entity is controlled by one of the six largest groups of borrowers in Israel, to whom as a group the amount of debt financing that has been extended from a bank amounts to 135% of such bank's capital, will not be able to receive any further loans from this bank. While the Israel Supervisor of Banks is entitled to exempt certain entities from the scope of the definition of a group of borrowers with respect to the new directive, a decision by the Israel Supervisor of Banks not to exempt us from this directive, to the extent it is applicable, may limit our ability to draw on our Fab 2 bank facility, may require us to return some or all of our outstanding borrowings and may have a material adverse effect on our business, financial condition and results of operations.

If we experience difficulty in achieving acceptable device yields, product performance and delivery times as a result of manufacturing problems, our business will be adversely affected.

The process technology for the manufacture of semiconductor wafers is highly complex, requires advanced and costly equipment and is constantly being modified in an effort to improve device yields, product performance and delivery times. Microscopic impurities such as dust and other contaminants, difficulties in the production process, defects in the key materials and tools used to manufacture a wafer and other factors can cause wafers to be rejected or individual semiconductors on specific wafers to be non-functional. We have from time to time experienced production difficulties that have caused delivery delays or returns and lower than expected device yields. We may also experience difficulty achieving acceptable device yields, product performance and product delivery times in the future as a result of manufacturing problems. Any of these problems could seriously harm our financial results and business.

# If our new chief executive officer is unable to fully transition into his new position, our operations will be adversely affected.

Our former co-chief executive officers left us in June 2003, after ten years of service. Our new chief executive officer took office in July 2003. If our new chief executive officer is unable to fully transition into his new position, our operations will be adversely affected.

If we are unable to purchase equipment and raw materials, we will not be able to manufacture our products in a timely fashion, which may result in a loss of existing and potential new customers.

To complete the ramp-up of our Fab 2 facility and to maintain the quality of production in our facilities, we must procure new equipment. In periods of high market demand, the lead times from order to delivery of manufacturing equipment could be as long as 12 to 18 months. In addition, our manufacturing processes use many raw materials, including silicon wafers, chemicals, gases and various metals. Manufacturing equipment and raw materials generally are available from several suppliers. In many instances, however, we purchase equipment and raw materials from a single source. Although supplies for manufacturing equipment and raw materials are adequate, shortages could occur due to an interruption of supply or increased industry demand. Any such shortages could result in production delays that could have a material adverse effect on our business and financial condition.

# We must continue to reduce our exposure to currency exchange and interest rate fluctuations, or our cost of operations will increase.

Almost all of our cash generated from operations and from our financing and investing activities is denominated in dollars and NIS. Our expenses and costs are denominated in NIS, dollars, Japanese Yen and Euros. We are, therefore, exposed to the risk of currency exchange rate fluctuations.

Our borrowings, including the loans contemplated under our Fab 2 credit facility, provide for interest based on a floating LIBOR rate, and we are therefore subject to exposure to interest rate fluctuations. Furthermore, if our banks incur increased costs in financing our Fab 2 credit facility due to changes in law or the unavailability of foreign currency, our banks may exercise their right to increase the interest rate on our Fab 2 credit facility as provided for in the credit facility, as they did pursuant to its recent amendment.

We regularly engage in various hedging strategies to reduce our exposure to some, but not all, of these risks and intend to continue to do so in the future. However, despite any such hedging activity, we are likely to remain exposed to interest rate and exchange rate fluctuations,

which may increase the cost of our activities and, following the ramp-up of Fab 2, will increase our financing expenses.

# We depend on intellectual property rights of third parties and failure to maintain or acquire licenses could harm our business.

We depend on third party intellectual property in order for us to provide foundry and design services to our clients. We believe that we are in compliance with the licensing agreements with the owners of these rights and that the licensing agreements adequately protect our rights. If problems or delays arise with respect to the timely development, quality and provision of such intellectual property to us, our customers' design and production could be delayed, resulting in underutilization of our capacity. Failure to maintain or acquire licenses could harm our business. In addition, license fees and royalties payable under these agreements may impact our margins and operating results.

# Failure to comply with the intellectual property rights of third parties may result in lawsuits.

Our ability to compete successfully depends on our ability to operate without infringing on the proprietary rights of others. There are no lawsuits currently pending against us regarding the infringement of patents or intellectual property rights of others. However, we have been a party to such claims in the past and recently received a notice from a technology company claiming that we are infringing its patent rights. This notice was followed by an offer to license the technology company's patents for an immaterial one-time license payment. We are currently negotiating a license with this technology company. All prior claims against us have been resolved through license agreements, the terms of which have not had a material effect on our business. One of these agreements expires at the end of 2005, and we may be unable to extend or renew it on similar terms. Possible infringement claims could harm our business by requiring us to pay royalties or to change our manufacturing processes.

# We could be seriously harmed by failure to comply with environmental regulations.

Our business is subject to a variety of laws and governmental regulations in Israel relating to the use, discharge and disposal of toxic or otherwise hazardous materials used in our production processes. We are currently operating under a conditional permit from the Israeli Ministry of Environmental Affairs concerning the concentration of fluoride in our wastewater. We believe that we are currently in compliance with the terms of our permit, with one exception: we are monitoring the levels of fluoride in accordance with an oral understanding with the Israeli Ministry of Environmental Affairs, which is less frequent than required by the written terms of our permit. If we do not comply with our permit's conditions or with our other understandings with the Ministry, we may be required to allocate financial resources for the implementation of an infrastructure solution in order to be in compliance with all the conditions. We estimate that such an infrastructure solution would be immaterial. While we believe that we currently comply in all other material respects with applicable environmental laws and regulations, if we fail to use, discharge or dispose of hazardous materials appropriately, or if applicable environmental laws or regulations change in the future, we could be subject to substantial liability or could be required to suspend or adversely modify our manufacturing operations.

# We may be subject to the risk of loss due to fire because the materials we use in our manufacturing processes are highly flammable.

We use highly flammable materials such as silane and hydrogen in our manufacturing processes and may therefore be subject to the risk of loss arising from fires. The risk of fire associated with these materials cannot be completely eliminated. We maintain insurance policies to reduce losses caused by fire, including business interruption insurance. If any of our fabs were to be damaged or cease operations as a result of a fire, it would reduce manufacturing capacity and reduce revenues.

# Possible product returns could harm our business.

Products manufactured by us are subject to return for specified periods if they are defective or otherwise fail to meet customers' specifications. Although we establish what we believe to be reasonable reserves against possible product returns based on our past experience, product returns in excess of such reserves may have an adverse effect on our business and financial condition.

We may be required to repay grants to the Israel Investment Center that we received in connection with Fab 1.

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We received grants and tax benefits for Fab 1 under the government of Israel Approved Enterprise program. As of December 31, 2001, we completed our investments under our Fab 1 program and are no longer entitled to any further investment grants for future capital investments in Fab 1. We have agreed that if we do not achieve Fab 1 revenues of \$90 million for 2003 and \$100 million for 2004 and maintain at Fab 1 at least 600 employees for 2003 and 625 employees for 2004, subject to prevailing market conditions, we will, if demanded by the Investment Center, be required to repay the Investment Center up to approximately \$2.5 million. Based on our expected level of Fab 1 revenues and employees for the fourth quarter of 2003, we may be required to repay the Investment Center up to approximately \$2.5 million.

Risks Related to this Offering and our Ordinary Shares

#### Our stock price may decline after the offering and may be volatile in the future.

The public offering price in this offering will be determined through negotiations between the underwriters and us and may not be indicative of our future market prices. As a result, you may not be able to resell any shares you buy from us at or above the public offering price due to a number of factors, including:

- actual or anticipated fluctuations in our operating results; •hanges in expectations as to our future financial performance or changes in financial estimates by securities analysts;
  - developments or disputes concerning patents or proprietary rights;
  - events or announcements relating to our collaborative relationship with others;
    - investors' perceptions;
    - volatility in the securities markets;
    - general conditions in the economy or other external factors;
      - technological innovations by our competitors; and
  - the operating and stock price performance of other comparable companies.

In addition, the stock market in general has experienced extreme volatility that often has been unrelated to the operating performance of particular companies. These broad market and industry fluctuations may adversely affect the trading price of our ordinary shares, regardless of our actual operating performance. In particular, the stock prices for many companies in the semiconductor industry have experienced wide fluctuations, which have often been unrelated to the operating performance of such companies. Such fluctuations may adversely affect the market price of our ordinary shares.

Issuance of additional shares pursuant to Fab 2 financing arrangements will dilute the interest of our shareholders.

In connection with the Fab 2 project, we have issued to date 36,485,386 ordinary shares to our wafer and equity partners and other shareholders. Upon the payment of the remaining \$24.6 million payment due in connection with the fifth and final Fab 2 milestone payments by our wafer and equity partners, we will issue approximately 5.1 million additional ordinary shares (assuming a purchase price of \$7.59 per share). Up to approximately 9.8 million additional ordinary shares may be issued upon the conversion of our outstanding convertible debentures and upon exercise of warrants held by some of our shareholders, our banks, our debentureholders and our Fab 2 contractor. In addition, we have issued to our employees options to purchase up to 6.8 million shares. We have also entered into a number of agreements which may result in our issuing large numbers of shares, particularly if we complete the transactions contemplated by these agreements at a time when our share price is low. Issuances of shares under these convertible securities will have a substantial dilutive effect on our shareholders.

#### Market sales of large amounts of our shares eligible for future sale may lower the price of our ordinary shares.

Of our 48,779,146 outstanding ordinary shares as of October 31, 2003, 11,895,032 are freely tradable and held by non-affiliates, and an additional 1,073,905 shares held by non-affiliates are eligible for sale pursuant to Rule 144 under the Securities Act of 1933, subject to the time, volume and manner of sale limitations of Rule 144. Of these shares, 476,213 and 597,692 shares will be freely tradable under Rule 144(k) by April 2004 and October 2004, respectively. An

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additional 80,456 shares held by non-affiliates will be eligible for sale under Rule 144(k) by May 2004.

In addition, certain of our affiliates (ICTech, SanDisk, Alliance Semiconductor, and Macronix) hold 35,729,753 of our shares, of which 4,086,037 are freely tradable and 26,380,558 are currently eligible for sale subject to the time, volume and manner of sale limitations of Rule 144. An additional 4,425,076 and 838,082 shares held by these affiliates will be eligible for sale under Rule 144 by May 2004 and August 2004, respectively, subject to the share transfer restrictions set forth in the shareholders agreement to which they are a party and which remain in effect through January 2008. ICTech and our large wafer partners, as well as our directors and officers, have agreed under written "lock-up" agreements that, for a period of 180 days from the date of this prospectus, they will not sell their shares. The sales of large amounts of our ordinary shares (or the potential for those sales even if they do not actually occur) may depress the market price of our ordinary shares. This could also impair our ability to raise capital through the sale of our equity securities.

# Our principal shareholders own a controlling interest in us and will be able to exercise it in ways which may be adverse to your interests.

Our wafer partners and ICTech own in excess of 73% of our outstanding shares. Under our articles of association, two shareholders holding together 33% of our outstanding shares constitute a quorum for conducting a shareholders meeting. Our wafer partners and ICTech could constitute a quorum for purposes of conducting a shareholders meeting. While we have always solicited proxies from our shareholders prior to our shareholders meetings, we would have a sufficient quorum with two large shareholders even if none of our other shareholders were to participate in our shareholder meetings. If only two large shareholders were to participate in one of our shareholder meetings, these shareholders would determine the outcome of our shareholder meetings without the benefit of the participation of our other shareholders. In addition, even if our other shareholders were to participate in our shareholders meeting in person or by proxy, our wafer partners and The Israel Corporation effectively control our company and may exercise this control in a manner adverse to the interests of our other shareholders.

Risks Related to Our Operations in Israel

#### Instability in Israel may harm our business.

All of our manufacturing facilities and our corporate and primary sales offices are located in Israel. Accordingly, political, economic and military conditions in Israel may directly affect our business.

Since the establishment of the State of Israel in 1948, a number of armed conflicts have taken place between Israel and its Arab neighbors, as well as incidents of civil unrest. In addition, Israel and companies doing business with Israel have, in the past, been the subject of an economic boycott. Although Israel has entered into various agreements with Egypt, Jordan and the Palestinian Authority, there has been an increase in unrest and terrorist activity, which began in September 2000 and which has continued with varying levels of severity into 2003. Parties with whom we do business have sometimes declined to travel to Israel during periods of heightened unrest or tension, forcing us to make alternative arrangements where necessary. In addition, the political and security situation in Israel may result in parties with whom we have agreements claiming that they are not obligated to perform their commitments under those agreements pursuant to force majeure provisions. We do not believe that the political and security situation has had any material impact on our business to date; however, we can give no assurance that security and political conditions will have no such effect in the future. Any hostilities involving Israel or the interruption or curtailment of trade between Israel and its present trading partners could adversely affect our operations and could make it more difficult for us to raise capital. Furthermore, our manufacturing facilities are located exclusively in Israel, which is currently experiencing civil unrest, terrorist activity and military action. Since we do not have a detailed disaster recovery plan that would allow us to quickly resume manufacturing, we could experience serious disruption of our manufacturing if acts associated with this conflict result in any serious damage to our manufacturing facilities. In addition, our business interruption insurance may not adequately compensate us for losses that may occur, and any losses or damages incurred by us could have a material adverse effect on our business.

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#### Our operations may be negatively affected by the obligations of our personnel to perform military service.

In the event of severe unrest or other conflict, individuals could be required to serve in the military for extended periods of time. In response to the increase in terrorist activity and the renewed Palestinian uprising, there has been a significant call up of military reservists, and it is possible that there will be additional call-ups in the future. Our operations could be disrupted by the absence for a significant period of time of one or more of our key employees or a significant number of our other employees due to military service. Such disruption could harm our operations.

# Our operations may be affected by negative economic conditions in Israel.

Israel has been going in recent years through a period of recession in economic activity, resulting in low growth rates and growing unemployment. Our operations could be adversely affected if the economic conditions in Israel continue to deteriorate. In addition, due to significant economic measures proposed by the Israeli Government, there have been several general strikes and work stoppages in 2003, affecting all banks, airports and ports. These strikes have had an adverse effect on the Israeli economy and on business, including our ability to deliver products to our customers or to receive raw materials from our suppliers in a timely manner. Following the passing by the Israeli Parliament of laws to implement the economic measures, the Israeli trade unions have threatened further strikes or work-stoppages, and these may have a material adverse effect on the Israeli economy and us.

#### If we do not receive a final business license, we may be required to cease our operations.

The construction of our Fab 2 facility has required us to renew our business license, and we are currently operating under a temporary business license, which will expire at the end of 2003. We are currently in the process of discussing the terms and conditions for the receipt of a final business license. In the event that we do not receive a final business license, we may be required to cease our operations.

# If the exemption allowing us to operate our manufacturing facilities seven days a week is not renewed, our business will be adversely affected.

We operate our manufacturing facilities seven days a week pursuant to an exemption from the law that requires businesses in Israel to be closed from sundown on Friday through sundown on Saturday. This exemption, which has been renewed several times in the past, expires on December 31, 2003. In addition, a significant increase in the number of employees permitted to work under this exemption will be needed as we ramp-up production at Fab 2. We expect the exemption to be renewed, but if the exemption is not renewed and we are forced to close the facility for this period each week, our financial results and business will be harmed.

# It may be difficult to enforce a U.S. judgment against us, our officers and directors and some of the experts named in this prospectus or to assert U.S. securities law claims in Israel.

We are incorporated in Israel. Most of our executive officers and directors and our Israeli accountants and attorneys are nonresidents of the United States, and a substantial portion of our assets and the assets of these persons are located outside the United States. Therefore, it may be difficult to enforce a judgment obtained in the United States against us or any of these persons. Additionally, it may be difficult for you to enforce civil liabilities under U.S. Federal Securities laws in original actions instituted in Israel.

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#### Forward-Looking Statements

The statements incorporated by reference or contained in this prospectus discuss our future expectations, contain projections of our results of operations or financial condition and include other forward-looking information within the meaning of Section 27A of the Securities Act of 1933, as amended. Our actual results may differ materially from those expressed in forward-looking statements made or incorporated by reference in this prospectus. Forward-looking statements that express our beliefs, plans, objectives, assumptions or future events or performance may involve estimates, assumptions, risks and uncertainties. Therefore, our actual results and performance may differ materially from those expressed in the forward-looking statements. Forward-looking statements often, although not always, include words or phrases such as the following: "will likely result," "are expected to," "will continue," "is anticipated," "estimate," "intends," "plans," "projection" and "outlook."

You should not unduly rely on forward-looking statements contained or incorporated by reference in this prospectus. Various factors discussed in this prospectus, including, but not limited to, all the risks discussed in "Risk Factors" may cause actual results or outcomes to differ materially from those expressed in forward-looking statements. You should read and interpret any forward-looking statements together with these documents.

Any forward-looking statement speaks only as of the date on which that statement is made. We will not update any forward-looking statement to reflect events or circumstances that occur after the date on which such statement is

made.

#### Use of Proceeds

We estimate that the net proceeds from the sale of the ordinary shares we are offering will be approximately \$ million. If the underwriters fully exercise the over-allotment option, the net proceeds of the shares we sell will be \$ million. "Net proceeds" is what we expect to receive after paying the underwriting discount and other expenses of the offering. For purposes of estimating net proceeds, we are assuming that the public offering price will be \$ per share.

The net proceeds will be used towards the further ramp-up and deployment of Fab 2 and for marketing expenses for the sale of our products and services as well as for general corporate purposes, including working capital.

# **Dividend Policy**

Since 1998, we have not declared or paid cash dividends on any of our shares, and we do not anticipate paying dividends on our ordinary shares in the foreseeable future. The credit facility that we entered into with our banks prohibits the payment of dividends prior to January 1, 2008, and before any such distribution, we must have placed on deposit with our banks in an amount equal to the debt service for the quarter in which the distribution is to be made and charged such deposit in favor of our banks, and we must have complied with certain financial ratios. In addition, we may only declare and pay a dividend provided that:

- the dividend is only paid from excess cash flow from Fab 2;
- there is no event of default outstanding under the credit facility; and
- an event of default could not reasonably exist after such distribution.

The Israel Companies Law also restricts our ability to declare dividends. We can only distribute dividends from profits (as defined in the law), provided that there is no reasonable suspicion that the dividend distribution will prevent us from meeting our existing and future expected obligations as they come due.

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#### Ordinary Shares Market Data

The primary trading market for our ordinary shares is the Nasdaq National Market, where our shares are listed and traded under the symbol "TSEM." The following table sets forth, for the periods indicated, the high and low reported sales prices of the ordinary shares on the Nasdaq National Market:

	<b>e</b> .	Low (U.S.
	\$)	\$)
<u>2001</u>		
First Quarter 2001	\$17.12	\$8.94
Second Quarter 2001	13.11	7.50
Third Quarter 2001	11.25	5.42
Fourth Quarter 2001	6.75	3.80
<u>2002</u>		

First Quarter 2002	8.50	5.11
Second Quarter 2002	6.93	5.23
Third Quarter 2002	5.85	3.26
Fourth Quarter 2002	5.51	3.11
<u>2003</u>		
First Quarter 2003	3.56	2.16
Second Quarter 2003	6.46	2.78
Third Quarter 2003	5.30	4.02
Fourth Quarter 2003 (through November 12, 2003)	7.60	4.00

Our shares also trade on the Tel Aviv Stock Exchange under the symbol "TSEM". The following table sets forth, for the periods indicated, the high and low reported sales price of our ordinary shares on the TASE:

	High	Low
	(NIS)	(NIS)
<u>2001</u>		
First Quarter 2001	71.86	33.98
Second Quarter 2001	55.57	31.98
Third Quarter 2001	48.26	25.03
Fourth Quarter 2001	30.06	16.79
<u>2002</u>		
First Quarter 2002	37.96	24.48
Second Quarter 2002	33.98	25.03
Third Quarter 2002	27.44	18.70
Fourth Quarter 2002	25.11	15.30
<u>2003</u>		
First Quarter 2003	16.46	10.25
Second Quarter 2003	28.60	12.90
Third Quarter 2003	22.90	18.20
Fourth Quarter 2003 (through November 12, 2003)	34.50	18.30

As of November 12, 2003, the exchange rate of the NIS to the US Dollars was \$1=NIS 4.52.

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### Capitalization

The following table shows:

• Our capitalization on September 30, 2003

Our capitalization on September 30, 2003, assuming the completion of this offering at an assumed public offering price of \$ per share and the use of the net proceeds as described under "Use of Proceeds."

As of September 30, 2003

	Actual (in the	As Adjusted ousands)
Cash and cash equivalents, including short-term deposits and designated		
cash	\$ 8,377	\$
Long-term debt, including current portion	351,000	
Convertible debentures	25,552	
Long-term liability in respect of customer advances	46,920	
Shareholders' equity (deficit):		
Ordinary shares, NIS 1.00 par value; authorized 100,000,000 shares (1),		
issued 50,079,146 shares, as adjusted 62,079,146 shares	12,479	
Additional paid-in capital	415,645	
Shareholder receivable and unearned compensation	(26)	
Accumulated deficit	(172,909)	
Treasury stock, 1,300,000 shares (1)(2)(3)	(9,072)	
Total shareholders' equity	246,117	
Total capitalization	\$ 669,589	\$

<sup>(1)</sup>Does not give effect to the increase in our authorized capital to 150,000,000 ordinary shares, which is expected to be approved by our shareholders prior to the consummation of this offering.

<sup>(2)</sup> The number of ordinary shares to be outstanding after this offering is based on the outstanding shares as of September 30, 2003. This information excludes (i) 6,777,520 ordinary shares issuable upon exercise of options granted to employees and directors at a weighted average exercise price of \$7.90 exercisable during varying periods through September 2013; (ii) up to 2,697,068 ordinary shares issuable upon conversion by December 31, 2008 of unsecured, subordinated convertible debentures in the principal amount of NIS 113,475,535 (or \$25.6 million), which are convertible through December 31, 2008 at a conversion price of NIS 41 (linked to the Israel consumer price index); (iii) 2,211,596 ordinary shares issuable upon exercise of options exercisable through January 20, 2006 at an exercise price of NIS 41.12, linked to the Israeli Consumer Price Index (\$9.32 as of September 30, 2003); (iv) 3,594,082 ordinary shares issuable upon exercise of warrants with an exercise price of \$7.50 and exercisable through February 2007; (v) 1,296,596 ordinary shares issuable upon the exercise of warrants issued to our banks in connection with the Fab 2 credit facility with an exercise price of \$6.17 per share and exercisable at various dates until November 2008; (vi) 2,916,951 ordinary shares issuable to our Fab 2 investors in connection with the unpaid portion of the initial installment of the fifth milestone payment, which are expected to be issued in December 2003 at a purchase price of \$2.983 per share and approximately 2.2 million shares issuable in connection with the second installment of the fifth milestone payment assuming a purchase price of \$7.59 per share (see "Certain Transactions — Amendment to Fifth Milestone Payment Schedule"); and (vii) 58,906 ordinary shares to be issued upon exercise of warrants issued to ICTech as a standby commitment fee in connection with the arrangements described in "Material Agreements — Credit Facility" with an exercise price of \$6.17 per share and exercisable until November 2008.

<sup>(3)</sup>This information excludes the following potential dilutive issuances of securities pursuant to our credit facility and agreements with our wafer partners and with TIC which cannot be calculated as of the date of the prospectus since the number of shares issuable will depend upon future transactions in which we may engage (i) ordinary shares issuable upon conversion of up to \$46.9 million in wafer prepayment credits which we have issued our wafer partners as of September 30, 2003, as well as shares we may issue to our other shareholders under certain circumstances (see "Certain Transactions — Amendment to Fifth Milestone Payment Schedule"); (ii) ordinary shares issuable to our wafer partners upon conversion of their remaining wafer credits issued in connection with their fourth milestone payment (see "Certain Transactions — Amendment to Fifth Milestone

Payment Schedule"); (iii) ordinary shares issuable upon exercise of warrants issued to ICTech and our banks in the event that we are required by our banks to complete a rights offering in connection with the arrangements described at "Material Agreements — Credit Facility;" and (iv) ordinary shares issuable upon conversion of securities we may be required to issue in connection with the rights offering and outside investor provisions of the arrangements described at "Material Agreements — Credit Facility."

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### Selected Consolidated Financial Data

This section presents our selected historical financial data. You should read carefully the financial statements included in this prospectus, including the notes to the financial statements. The selected data in this section is not intended to replace the financial statements. We derived the statement of operations data for the years ended December 31, 2002, 2001 and 2000, and balance sheet data as of December 31, 2002 and 2001 from the audited financial statements in this prospectus. Those financial statements were prepared in accordance with Israeli GAAP and audited by Brightman Almagor & Co., a member of Deloitte Touche Tohmatsu, independent auditors. We derived the statement of operations data for the years ended December 31, 1999 and 1998 and the balance sheet data as of December 31, 2000, 1999 and 1998 from our audited financial statements that are not included in the prospectus, which have been prepared in accordance with Israeli GAAP. We derived the statement of operations data for the nine months ended September 30, 2003 and 2002 and balance sheet data as of September 30, 2003 from the unaudited financial statements included in this prospectus, which have been prepared in accordance with Israeli GAAP. Statements of operations and selected operations data in accordance with US GAAP would not have materially differed from respective data in accordance with Israeli GAAP. Our management believes that the unaudited historical financial statements contain all adjustments needed to present fairly the information included in those statements and that the adjustments made consist only of normal recurring adjustments. However, the unaudited financial information is not necessarily indicative of full year results.

		nths Ended					
	Septen	nber 30,		Year I	Ended Decem	iber 31,	
	2003	2002	2002	2001	2000	1999	1998
			(in thousan	ds, except per	r share data)		
<b>Statement of Operations Data:</b>							
Sales	\$ 41,545	\$ 36,229	\$ 51,801	\$ 52,372	\$104,775	\$ 69,815	\$ 69,637
Cost of sales	75,816	49,956	67,022	76,733	88,787	77,033	76,781
Gross profit (loss)	(34,271)	(13,727)	(15,221)	(24,361)	15,988	(7,218)	(7,144)
Research and development	12,551	10,184	17,031	9,556	8,965	9,238	8,107
Marketing, general and							
administrative	17,064	11,807	17,091	14,489	11,428	8,710	8,747
Operating loss	(63,886)	(35,718)	(49,343)	(48,406)	(4,405)	(25,166)	(23,998)
Financing income (expense), net	(4,293)	(2,100)	(2,104)	1,465	1,394	2,277	2,741
Other income (expense), net	(87)	_	45	8,419	(478)	17	13
Loss before income tax benefit							
(expense)	(68,266)	(37,818)	(51,402)	(38,522)	(3,489)	(22,872)	(21,244)
Income tax benefit (expense)	_	_	_	_	(500)	2,405	5,700

Loss for the period	\$ (68,266)	\$ (37,818)	\$ (51,402)	\$ (38,522)	\$ (3,989)	\$ (20,467)	\$ (15,544)
Basic loss per ordinary share	\$ (1.49)	\$ (1.34)	\$ (1.63)	\$ (1.92)	\$ (0.26)	\$ (1.54)	\$ (1.18)
Other Financial Data:							
Depreciation and amortization	\$ 30,386	\$ 14,402	\$ 18,821	\$ 21,721	\$ 25,917	\$ 26,643	\$ 25,414
Capital expenditures before							
Investment Center grants	147,394	156,564	243,431	364,347	79,060	15,152	18,779

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	As of September 30,		As o	of December	31,	
	2003	2002	2001	2000	1999	1998
			(in tho	usands)		
Selected Balance Sheet Data in accordance with Israeli GAAP:						
Cash and cash equivalents,						
including short-term deposits and						
designated cash	\$ 8,377	\$ 69,695	\$ 33,202	\$ 18,707	\$ 41,880	\$ 39,282
Working capital	(28,172)	21,927	(16,335)	28,635	56,001	66,037
Total assets	750,612	716,261	472,054	179,298	155,211	180,047
Long-term debt.	347,000	253,000	115,000	12,064	12,106	12,127
Convertible debentures	25,552	24,121	_	_	· _	· _
Long-term liabilities in respect of						
customers' advances.	46,920	47,246	17,910	_		1,076
Shareholders' equity	246,117	298,334	252,805	134,648	122,121	143,325
Selected Balance Sheet Data in accordance with US GAAP:						
Total assets	\$758,041	\$722,706	\$477,824	\$199,813	\$162,299	\$186,285
Shareholders' equity	230,015	282,890	244,636	147,211	122,121	143,325
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Management's Discussion and Analysis of Financial Condition and Results of Operations

The information contained in this section should be read in conjunction with our consolidated financial statements and related notes and the information contained elsewhere in this prospectus. Our financial statements have been prepared in accordance with generally accepted accounting principles ("GAAP") in Israel. Material differences between Israeli

GAAP and US GAAP as they relate to our financial statements are described in Note 20 to our consolidated audited annual financial statements and in Note 5 to our unaudited consolidated financial statements.

#### Overview

We are a pure-play independent wafer foundry dedicated to the manufacture of semiconductors. We manufacture semiconductors using advanced production processes for our customers primarily based on third party designs and our own proprietary designs. We currently manufacture integrated circuits, or ICs, with geometries ranging from 1.0 to 0.18 microns and plan to initiate volume production in geometries of 0.13 microns during 2005.

Our primary source of revenue is from the fabrication of ICs using CMOS process technology. We are currently focused on the emerging opportunities involving CMOS image sensors, embedded flash and mixed-signal technologies. ICs manufactured by us are incorporated into a wide range of products in diverse markets, including consumer electronics, personal computer and office equipment, communications, automotive, professional photography and medical device products.

The primary customers for our products are fabless IC companies and integrated device manufacturers, or IDMs. Most of our product sales are made pursuant to long-term contracts with our customers, under which we have agreed to reserve manufacturing capacity at our production facilities. Our sales cycle is generally 18-24 months for new customers and can be as short as 9-12 months for existing customers. The typical stages in the sales process, from initial contact until production, are: technical evaluation; photomask design specification; silicon prototyping; assembly and testing; validation and qualification; and production.

During the nine months ended September 30, 2003, National Semiconductor, Motorola, FillFactory and SanDisk contributed 26%, 15%, 12% and 11% of our revenues, respectively. In 2002, National Semiconductor, Matsushita and Motorola contributed 31%, 16% and 13% of our revenues, respectively. In 2001, National Semiconductor and Motorola contributed 30% and 17% of our revenues, respectively. As foundry utilization rates peak with the industry recovery, we expect to attract additional customers as available capacity decreases worldwide, including at leading Asian foundries.

In addition to further developing our customer base, we have also made a concentrated effort to expand the geographical diversity of our sales. The percentage of our sales from customers located outside the United States was 10%, 31%, 38% and 28% in the years ended December 31, 2000, 2001 and 2002 and the nine months ended September 30, 2003, respectively. As we have successfully expanded our customer base with customers located in Asia-Pacific and in Europe, we believe that a substantial portion of our sales will continue to come from customers located outside the United States.

Our Company was founded in 1993, when we acquired National Semiconductor's 150-mm wafer fabrication facility, or Fab 1, and commenced operations as an independent foundry with a production capacity of approximately 5,000 wafer starts per month. Since then, we have significantly modernized our facilities and equipment, which has improved our process geometries from 1.0 microns to 0.35 microns and enhanced our process technologies to include CMOS image sensors, embedded flash and mixed-signal technologies. We have also expanded our capacity through increased production in Fab 1 to approximately 16,000 wafer starts per month to meet additional customer demand. Fab 1 has been cash flow positive for the past six quarters.

We recently completed the construction of the building and infrastructure and commenced the initial ramp-up of a second manufacturing facility, or Fab 2. Fab 2 is designed to operate in geometries of

0.18 microns and below, using advanced materials and advanced CMOS technology licensed from Motorola and Toshiba, as well as other technologies that we might acquire or develop independently. We began volume production at Fab 2 during the third quarter of 2003, and by year end, we anticipate that Fab 2 will have production capacity of 8,500 wafer starts per month. When the production ramp is completed, Fab 2 is expected to have the capacity to produce 33,000 200-mm wafer starts per month. While we expect to continue to operate Fab 1, we expect Fab 2 to form the core of our future business.

### Critical Accounting Policies

Non-Capitalizable Costs. In accordance with generally accepted accounting principles, we capitalized through the third quarter of 2003 most of our costs relating to the establishment of Fab 2, primarily for property and equipment and other assets. Following commencement of operations of Fab 2 in the third quarter of 2003, most of the direct costs related to the construction and equipping of Fab 2 and to the transfer of the Fab 2 technologies that were capitalizable until Fab 2 came into production, are no longer capitalizable. Capitalizable Fab 2 costs were only incremental direct costs that related to the establishment and equipping of Fab 2 and to the integration and transfer of technology to be implemented in Fab 2.

Direct internal costs consisted primarily of payroll-related costs, and allocated payroll costs, on the basis of management's estimates and assumptions and methodologies, including timesheet inputs. Most of the capitalized payroll-related costs consisted of wages to employees dedicated solely to the establishment of Fab 2. In addition, other direct related expenses such as import costs, transportation, installation and consulting fees were also capitalized. Under different assumptions relating to these costs and their being attributable to the Fab 2 project, the classification of these costs may be different, which may significantly affect our financial position and results of operations. The effect, if any, under Israeli GAAP and US GAAP would be similar.

Revenue Recognition. In accordance with generally accepted accounting principles, our revenues are recognized upon shipment or as services are rendered when title has been transferred, collectibility is reasonably assured and acceptance criteria are satisfied, based on tests performed prior to customer on-site testing. Prior to commencement of production by us, we and our customers test and pre-approve the prototype, on the basis of which specifications and features the ordered products will be produced. Electronic, functional and quality tests are performed on the products prior to shipment and customer on-site testing. Such testing reliably demonstrates that the products meet all of the specified criteria prior to formal customer acceptance and that product performance upon customer on-site testing can reasonably be expected to conform to the specified acceptance provisions. Our revenue recognition policy is significant because our revenues are a key component of our results of operations. We follow very specific and detailed guidelines in measuring revenue; however an accrual for estimated returns, which is computed primarily on the basis of historical experience, is recorded. Changes in assumptions for determining the accrual for returns may affect the timing of our revenue recognition and cause our operating results to vary from quarter to quarter. Accordingly, our financial position and results of operations may be affected. That effect, if any, under Israeli GAAP and US GAAP would be similar.

Depreciation and Amortization of Fab 2 Assets. During the third quarter of 2003, we commenced depreciating the Fab 2 property and equipment and amortizing the 0.18-micron technology, based on the straight-line method. Currently, we estimate that the expected economic life of the Fab 2 assets will be as follows: (i) prepaid perpetual land lease and buildings – 14 to 25 years; (ii) machinery and equipment – 5 years; and (iii) the 0.18-micron technology – 4 years, while amortization will phase in commencing on the dates on which each of the Fab 2 manufacturing lines is ready for use. We expect that the depreciation and amortization expenses relating to Fab 2 facilities will be in 2004 approximately \$30 million per quarter due to the Fab 2 ramp-up. Changes in our estimates regarding the expected economic life of Fab 2 assets, or a change in the dates on which each of the Fab 2 manufacturing lines is ready for use,

might significantly affect our depreciation and amortization expenses. That effect, if any, under Israeli GAAP and US GAAP would be similar.

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Impairment of Assets. In January 2003, the Israeli Accounting Standards Board issued Standard No. 15, "Impairment of Assets," which is effective for financial statements for reporting periods commencing January 1, 2003 or thereafter. This standard addresses the accounting treatment and presentation of impairment of assets, and establishes procedures to be implemented in order to ensure that assets are not presented in amounts exceeding their recoverable value. Though according to US GAAP, e.g. FASB 144 and FASB 142, recoverability tests are performed based on undiscounted expected cash flows, Standard No. 15 indicates that an asset's recoverable value is the higher of the asset's net selling price and the asset's value in use, the latter being equal to the asset's discounted expected cash flows. While the adoption of the provisions of Standard No. 15 as of September 30, 2003, had no effect on our financial position and results of operations as of such date, the use of different assumptions with respect to the expected cash flows from our assets and other economic variables, primarily the discount rate, may lead to different conclusions regarding the recoverability of our assets' carrying values and to the potential need to record an impairment loss for our long-lived assets.

Recent Accounting Pronouncements under US GAAP as They Apply to Us

Rescission and Amendments of Certain SFASs. In April 2002, the Financial Accounting Standard Board, or FASB, issued Statement of Financial Accounting Standards No. 145 "Rescission of FASB Statements No. 4, 44 and 64, Amendment of FASB Statement No. 13 and Technical Corrections" ("SFAS 145"). SFAS 145 rescinds amends and clarifies certain previous standards related primarily to debt extinguishments and leases. SFAS 145 eliminates the requirement that gains and losses from the extinguishments of debt be aggregated and classified as an extraordinary item. The rescission of SFAS No. 4 is effective for fiscal years beginning after May 15, 2002. The remainder of SFAS 145 is generally effective for transactions occurring after May 15, 2002. Adoption of SFAS 145 did not have and is not expected to have any material impact on our financial position and results of operations.

Accounting for Costs Associated with Exit or Disposal Activities. In July 2002, the FASB issued Statement of Financial Accounting Standards No. 146, "Accounting for Costs Associated with Exit or Disposal Activities" ("SFAS 146"). SFAS 146 supersedes EITF No. 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)." SFAS 146 requires companies to recognize costs associated with exit or disposal activities when they are incurred rather than at the date of a commitment to an exit or disposal plan, as required by EITF 94-3. SFAS 146 is effective for exit or disposal activities that are initiated after December 31, 2002, with early application encouraged. Adoption of SFAS 146 did not have any impact on our financial position and results of operations.

Accounting for Stock-Based Compensation — Transition and Disclosure — an Amendment of FASB Statement No. 123. In December 2002, the FASB issued Statement of Financial Accounting Standards Board No. 148, "Accounting for Stock-Based Compensation — Transition and Disclosure — an amendment of FASB Statement No. 123" ("SFAS 148"). SFAS 148 amends SFAS No. 123 to provide alternative methods of transition for a voluntary change to the fair value based method of accounting for stock-based employee compensation. In addition, SFAS 148 amends the disclosure requirements of SFAS 123 to require prominent disclosures in both annual and interim financial statements about the method of accounting for stock-based employee compensation and the effect of the method used on reported results. We have followed the prescribed format and have provided the additional disclosures required by SFAS 148 in these financial statements for the periods presented and have provided the disclosures in our quarterly reports

containing condensed financial statements for interim periods commencing the quarter ended March 31, 2003.

Amendment of SFAS 133. In May 2003, the FASB issued SFAS No. 149, "Amendment of Statement 133 on Derivative Instruments and Hedging Activities." SFAS No. 149 amends and clarifies accounting for derivative instruments including certain derivative instruments embedded in other contracts and hedging activities under SFAS No. 133. It is effective for contracts entered into or modified after June 30, 2003 and for hedging relationships designated after June 30, 2003. The adoption of this standard had no impact our financial position or results of operations.

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Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity. In May 2003, the FASB issued SFAS No. 150, "Accounting For Certain Financial Instruments with Characteristics of Both Liabilities and Equity" which establishes standards for how an issuer of financial instruments classifies and measures certain financial instruments with characteristics of both liabilities and equity. SFAS 150 requires that an issuer classify a financial instrument that is within its scope as a liability (or an asset in some circumstances) if, at inception, the monetary value of the obligation is based solely or predominantly on a fixed monetary amount known at inception, variations in something other than the fair value of the issuer's equity shares or variations inversely related to changes in the fair value of the issuer's equity shares. This statement is effective in connections with our activities for financial instruments entered into at the beginning of the third quarter of 2003. The adoption of SFAS 150 had no impact on our financial position and results of operations.

FIN 45. In November 2002, the FASB issued FASB Interpretation No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others" ("FIN 45"). This interpretation requires elaborating on the disclosures that must be made by a guarantor in its interim and annual financial statements about its obligations under certain guarantees that it has issued. It also clarifies that a guarantor is required to recognize, at the inception of a guarantee, a liability for the fair value of the obligation undertaken in issuing the guarantee. The disclosure requirements of FIN 45 are effective for financial statements issued after December 15, 2002 and its recognition requirements are applicable for guarantees issued or modified after December 31, 2002. The adoption of FIN 45 had no impact on our financial position and results of operations.

FIN 46. In January, 2003, the FASB issued FASB Interpretation No. 46, "Consolidation of Variable Interest Entities" ("FIN 46"). This Interpretation of Accounting Research Bulletin No. 51, "Consolidated Financial Statements," addresses consolidation by enterprises of variable interest entities in which equity investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional support from other parties. FIN 46 applies immediately to variable interest entities created after January 31, 2003, and to variable interest entities in which an enterprise obtains an interest after that date. With respect to variable interest entities, if any, in which we hold a variable interest acquired before February 1, 2003, the guidance in FIN 46 is in effect for our financial statements beginning July 1, 2003. The adoption of FIN 46 had no impact on our financial position and results of operations.

Recent Accounting Pronouncements under Israeli GAAP as They Apply to Us

Impairment of Assets According to Standard No. 15 of the Israeli Accounting Standards Board. In January 2003, the Israeli Accounting Standards Board issued Standard No. 15, "Impairment of Assets". This standard is the initial formal accounting pronouncement in Israel addressing the accounting treatment and presentation of impairment of assets, which establishes procedures to be implemented in order to ensure that assets are not presented in amounts

exceeding their recoverable value. An asset's recoverable value is the higher of the asset's net selling price and the asset's value in use, the latter being equal to the asset's discounted expected cash flows. Prior to issuing Standard No. 15, we tested the recoverability of its assets based on undiscounted expected cash flows, a method that under Standard No. 15 will no longer be acceptable. Initial application of this standard will generally be on a prospective basis. Standard No. 15 is effective for financial statements for reporting periods commencing January 1, 2003 or thereafter, with early application encouraged. The adoption of the provisions of Standard No. 15 as of December 31, 2002 and September 30, 2003, would not have a material effect on our financial position and results of operations as of such date.

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with the interim financial statements and the related notes thereto.

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#### **Results of Operations**

Nine Months ended September 30, 2003 compared to Nine Months ended September 30, 2002

Sales. Sales in the nine months ended September 30, 2003 increased by 14.7% to \$41.5 million from \$36.2 million in the comparable 2002 period. This increase is primarily attributable to higher wafer shipments in Fab 1 as well as commencement of production and wafer sales in Fab 2 during the third quarter of 2003.

Cost of Sales. Cost of sales in the nine months ended September 30, 2003 was \$75.8 million, compared with \$50.0 million in the comparable 2002 period. This increase is due mainly to the commencement of operations of Fab 2 during 2003, which resulted in depreciation and amortization expenses of \$17.3 million, as well as expensing certain costs which were capitalized prior to the commencement of Fab 2 operations.

Gross Loss. Gross loss in the nine months ended September 30, 2003 was \$34.3 million compared to a gross loss of \$13.7 million in the comparable 2002 period. The increase in gross loss is attributable mainly to the high level of expenses related to Fab 2 (primarily depreciation and amortization) in relation to low levels of sales in Fab 2 during this period.

Research and Development. Research and development expenses in the nine months ended September 30, 2003 increased to \$12.6 million from \$10.2 million in the comparable 2002 period. The increase was primarily due to increased research and development activities related to the technologies licensed from Motorola and Toshiba for Fab 2. Research and development expenses are reflected net of participation grants received from the Israeli government.

Marketing, General and Administration. Marketing, general and administrative expenses in the nine months ended September 30, 2003 increased to \$17.1 million from \$11.8 million in the comparable 2002 period, primarily due to the expansion of our worldwide marketing and sales efforts in connection with Fab 2.

Operating Loss. Operating loss in the nine months ended September 30, 2003 was \$63.9 million, compared to \$35.7 million in the comparable 2002 period, reflecting the increased gross loss, increased research and development expenses and increased marketing and sales expenses in connection with Fab 2.

Financing Expenses, Net. Financing expenses in the nine months ended September 30, 2003 were \$4.3 million compared to financing expenses of \$2.1 million in the comparable 2002 period. This increase is due to the expensing

of interest costs that were capitalized prior to the commencement of operations of Fab 2 in the third quarter of 2003. In addition, financing expenses in the comparable period were lower due to interest income received from higher levels of cash and cash equivalents. Financing expenses, net, in the nine months ended September 30, 2003 exclude interest costs of \$9.1 million in connection with the establishment of Fab 2 that were capitalized to property and equipment, compared to \$7.4 million in the comparable 2002 period.

Loss. Our loss in the nine-month period ended September 30, 2003 was \$68.3 million, compared to \$37.8 million in the comparable 2002 period. This increase is primarily attributable to the increase in operating expenses (primarily depreciation and amortization and marketing, general and administrative) related to Fab 2.

Year Ended December 31, 2002 Compared to Year Ended December 31, 2001

Sales. Sales in 2002 decreased by 1.1% to \$51.8 million from \$52.4 million in 2001. This decrease is attributable to 10% lower wafer shipments as well as a reduction of 9% in the average price per wafer as a result of weakening demand in the semiconductor industry that was offset by \$8 million in revenue associated with our joint development agreement with Matsushita for the development of 0.18-micron embedded microFLASH technology.

Cost of Sales. Cost of sales in 2002 was \$67.0 million, compared with \$76.7 million in 2001. The decrease was attributable to cost savings initiatives that were implemented in Fab 1, offset by fixed manufacturing costs and uncapitalized expenses related to the establishment of Fab 2.

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Gross Loss. Gross loss in 2002 was \$15.2 million compared with a gross loss of \$24.4 million in 2001. Our gross loss in 2002 was lower than our gross loss in 2001 primarily due to cost savings activities in Fab 1 and the gross profit from joint development with Matsushita, set off by our reduced production sales and our higher uncapitalized expenses related to the establishment of Fab 2.

Research and Development. Research and development expenses in 2002 increased to \$17.0 million from \$9.6 million in 2001. The increase was primarily due to increased research and development activities for technologies to be implemented in Fab 2. Research and development expenses are reflected net of participation grants received from the Israeli government.

Marketing, General and Administration. Marketing, general and administrative expenses in 2002 increased to \$17.1 million from \$14.5 million in 2001 primarily due to deployment for Fab 2 activities and higher marketing efforts among new and potential Fab 2 customers during 2002.

Operating Loss. Operating loss in 2002 was \$49.3 million, compared to \$48.4 million in 2001. The increase was due to higher research and development expenses, as well as marketing expenses in connection with Fab 2.

Financing Income (Expenses), Net. Financing expenses in 2002 were \$2.1 million compared with \$1.5 million financing income in 2001. Our financing costs in 2002 and 2001, most of which were not included in results of operations but were capitalized to Fab 2 assets during the establishment of Fab 2, were comprised primarily of bank loans interest as well as expenses in 2002 related to convertible debentures. While in 2001 non-capitalized financial expenses were off-set by financial income, primarily bank interest on proceeds from our Fab 2 investors, resulting in net financial income, in 2002 financial expenses exceeded financial income due to the decrease in cash and cash equivalents.

Other Income, Net. Other income, net, in 2002 was \$0.045 million, compared to other income, net, of \$8.4 million in 2001, due to the sale of our shareholding in Virage Logic in 2001 for a capital gain of \$9.5 million, offset by a \$1.1 million write off of our investment in Azalea Microelectronics in 2001.

Taxes on Income. Due to our recent history of operating losses, in 2002 and 2001 we established valuation allowances against all deferred tax assets, except to the extent of existing deferred tax liabilities. We therefore recognized no income tax benefit attributable to our net operating loss.

Loss. Our loss in 2002 was \$51.4 million compared to a loss of \$38.5 million in 2001. The increased loss was primarily attributable to the increase in our non-capitalized expenses, research, development and marketing expenses related to Fab 2.

Year Ended December 31, 2001 Compared to Year Ended December 31, 2000

Sales. Sales in 2001 decreased by 50% to \$52.4 million from \$104.8 million in 2000. The decrease in 2001 is primarily attributable to 52.8% lower wafer shipments, compared to 2000, as a result of weakening demand in the semiconductor industry.

Cost of Sales. Cost of sales in 2001 was \$76.7 million, compared with \$88.8 million in 2000. The decrease in 2001 was primarily attributable to the lower utilization of the facility. Due to our high level of fixed manufacturing costs, we have not been able to reduce our cost of sales in proportion to the reduction in sales.

Gross Profit (Loss). Gross loss in 2001 was \$24.4 million, compared with a gross profit of \$16.0 million in 2000. This gross loss in 2001 is primarily attributable to our reduced sales and higher level of fixed costs.

Research and Development. Research and development expenses in 2001 were \$9.6 million, compared with \$9.0 million in 2000. The increase in R&D in 2001 was due to our high level of research activity in connection with new technologies to be implemented in Fab 2. R&D expenses are reflected net of participation grants received from the Israeli government.

Marketing, General and Administration. Marketing, general and administrative expenses in 2001 increased to \$14.5 million, compared to \$11.4 million in 2000. The increase in 2001 was primarily attributable to recruitment and training expenses, in addition to our marketing efforts in connection with Fab 2.

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Financing Income, Net. Financing income in 2001 was \$1.5 million compared with \$1.4 million in 2000. The increase in our financing income was due to interest income on proceeds received from our Fab 2 investors offset by higher levels of interest expenses on our increased Fab 1 credit facility.

Operating Loss. Operating loss in 2001 increased to \$48.4 million from \$4.4 million in 2000. The increased operating loss in 2001 was primarily attributable to increased gross losses and non-capitalized expenses incurred in connection with Fab 2.

Other Income (Expense), Net. Other income, net, in 2001 was \$8.4 million compared to other expense of \$0.5 million in 2000 due to the sale of our holdings in Virage Logic for a capital gain of \$9.5 million, offset by a \$1.1 million write-off of our investment in Azalea Microelectronics.

Income Taxes (Benefit). Due to our recent history of operating losses, in 2001 and 2000 we established valuation allowances against all deferred tax assets, except to the extent of existing deferred tax liabilities. We therefore recognized no income tax benefit attributable to the net operating loss. In 2000 we entered into a final settlement agreement with the Israeli tax authorities for the years 1993-1998, pursuant to which we incurred an expense of \$0.5 million.

Loss. The loss in 2001 was \$38.5 million, compared to a loss of \$4.0 million in 2000. The loss in 2001 was primarily attributable to lower sales, higher fixed costs and Fab 2 non-capitalized expenses of \$10.6 million, offset by the capital gain of \$9.5 million from the sale of our investment in Virage Logic.

#### Liquidity and Capital Resources

At September 30, 2003, we had an aggregate of \$8.4 million in cash, cash equivalents, and short-term interest-bearing deposits, of which \$1.7 million was contractually restricted for Fab 2 use only. This compares to \$69.7 million in cash, cash equivalents, and short-term and interest-bearing deposits, of which \$51.3 million was contractually restricted for Fab 2 use only, as of December 31, 2002.

During the nine months ended September 30, 2003, we generated cash from the following sources: \$94.0 million from bank loans, net of repayments; \$15.8 million net proceeds from our issuance of ordinary shares; and \$27.8 million from Investment Center grants. During the nine months ended September 30, 2003, we invested \$161.5 million in construction, equipment and other assets of Fab 2, primarily in connection with our purchase and transfer of technology from Motorola and Toshiba and construction and equipping of Fab 2. Fab 2 operating expenses are expected to result in negative cash flow from operating activities through the end of 2003.

As of September 30, 2003, we had \$10.0 million of loans under our Fab 1 facility, which will be repaid and terminated in November 2003.

We recently completed the construction of the building and infrastructure and commenced the initial ramp-up of Fab 2, our new advanced wafer facility adjacent to Fab 1 in Migdal Haemek, Israel and have begun wafer production for our customers in Fab 2 during the third quarter of 2003. By the end of 2003, we anticipate that Fab 2 will have production capacity of 8,500 wafer starts per month. When the ramp-up is completed, Fab 2 is expected to have the capacity of 33,000 200-mm wafer starts per month. We expect to complete our ramp-up of Fab 2 by December 2006. We expect the total cost of the construction, equipping of the Fab 2 facility and ramp-up of the manufacturing line will be approximately \$1.5 billion. As of September 30, 2003, our total Fab 2 expenditures totalled \$824 million.

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The following chart illustrates the various financial sources available to us to fund the construction and ramp-up to completion of Fab 2, the amounts received to date and the amounts expected or required to be received from various sources:

Financial Sources Received Amounts Total as of expected

September or required 30, 2003 to

		be received	
		after	
		September	
		30, 2003	
		(in millions)	
Wafer Partners and other equity investors	\$281	\$ 25(1)	\$306
Israel Government Investment Center	112	138(2)	250
Credit facility	341	159(3)(6)	500
Additional financing obligations required by credit facility (4)	86	152(5)(6)	238

- (1)Pursuant to an amendment to the Fab 2 investment agreements, our Fab 2 investors that are a party to this amendment have agreed to pay their remaining committed amounts in the aggregate of \$24.6 million (see "Certain Transactions Fab 2 Agreements Amendment to Fifth Milestone Payment Schedule").
  - (2)Under the requirements of Israeli Law, we are required to complete our approved investment program for Fab 2 by the end of 2005 (see "— Investment Center Grants"). Failure to meet this requirement may result in the cancellation of all or a portion of our grants. See "Risk Factors We must meet conditions to receive the Israeli government grants and tax benefits approved for Fab 2."
- (3)Our banks' obligation to fund the loans is subject to the satisfaction of minimum production capacity milestones, the required maintenance of financial ratios and to additional conditions and covenants (see "Material Agreements Credit Facility" for a discussion of the amendment to the credit facility with our banks).
  - (4) These obligations may be satisfied by our raising funds through: (i) this offering and other equity investments, including the sale of convertible securities; (ii) proceeds from the sale of securities we own in certain companies, including Saifun Semiconductors Ltd.; (iii) wafer prepayments from customers and (iv) a portion of payments we receive from Matsushita.
- (5)Under the amendment to our Fab 2 credit facility, we are required to raise additional financing from specified sources by various prescribed dates and to raise an aggregate amount of \$152.0 million by no later than the end of 2005 (see "Material Agreements Credit Facility"). The proceeds of this offering will be applied toward our compliance with this contractual obligation. If we raise \$85.6 million in this offering, the remaining additional financing that we will be required to raise under our credit facility will decrease from \$152 million to \$66.4 million.
  - (6)We have agreed with our banks and TIC to complete a rights offering on pre-determined terms if we do not complete a required fundraising. This arrangement may result in an increase of our credit facility by up to \$43 million.

Pursuant to the amendment to our Fab 2 credit facility and the amendment to the fifth milestone payment schedule with our Fab 2 investors, as discussed below ("Material Agreements — Credit Facility" and "Certain Transactions — Amendment of Fifth Milestone Payment Schedule"), we expect to have adequate liquidity for our Fab 2 activities in 2004. In 2004, we expect to make capital investments of approximately \$160 million and to have negative cash flow from Fab 2 operations of approximately \$40 million. We expect to fund our Fab 2 activities during 2004 from our cash from operations, as well as from the following sources: (1) additional loans under the Fab 2 credit facility, approximately \$70 million; (2) Investment Center grants, approximately \$30 million; and (3) equity investors and additional sales of securities, including the proceeds of this offering. We cannot assure you that we will be able to obtain funds from these sources as expected, due to existing or potential defaults under our Fab 2 agreements, poor conditions in capital markets, failure to benefit from a recovery in the semiconductor market, failure to achieve milestones and other factors, which may affect our ability to raise funds. If we do not satisfy our need for funds for Fab 2 or if the timing of the receipt of financing lags behind the timing of expenses, we may from time to time experience lack of liquidity for our activities.

The following table summarizes our contractual obligations and commercial commitments as of September 30, 2003 (in thousands):

	Payment Due							
		Less						
		than 1					After	
Contractual Obligations	Total	Year	2 Years	3 Years	4 Years	5 Years	5 Years	
Short-term debt and other								
current liabilities (1)	\$ 73,361	\$ 73,361	\$ -	- \$ -	- \$ _	- \$ _	\$ -	
Long-term debt (2)	455,713	28,455	20,897	21,711	106,231	128,530	149,889	
Convertible debentures (3)	30,982	1,234	1,234	7,591	7,283	6,974	6,666	
Operating leases	2,276	715	692	597	251	21	_	
Fab 2 construction & equipment								
agreements (4)	41,042	37,542	3,500	_	· <u> </u>	· <u> </u>	_	
Other long-term liabilities	38,712	2,482	2,482	2,482	2,482	2,482	26,302	
Total contractual obligations	\$642,086	\$143,789	\$28,805	\$32,381	\$116,247	\$138,007	\$182,857	

<sup>(1)</sup>Short-term debt and other current liabilities include our trade accounts payable for equipment and services that have already been supplied.

The above table does not include other categories of obligations or commitments, such as royalty agreements and short term service agreements for Fab 2. We are unable to reasonably estimate the total amounts to be paid under the terms of these agreements, as the royalties and required services are a function of future sales revenues and the volume of business in Fab 2. We are not a party to any material off-balance sheet arrangements.

Investment Center Grants. In December 2000, the Israeli government's Investment Center approved an investment program in connection with Fab 2. The approval certificate provides for government grants at a rate of 20% of qualified investments up to \$1.25 billion, up to \$250 million, subject to customary conditions and other conditions, including a requirement that approximately \$400 million of our Fab 2 funding consist of paid-in-capital and that \$550 million of our Fab 2 funding will be obtained by way of a credit facility from commercial banks, which was subsequently reduced to \$500 million. The approval certificate also provides for a tax holiday on all taxable income related to Fab 2 for the first two years of undistributed profitable operations. As of September 30, 2003, we had received approximately \$112 million in grants from the Investment Center, and raised \$276.9 million as paid in capital towards the \$400 million.

Consistent with the requirements of Israeli law, our investment grant requires that we complete our investment program within five years, meaning by no later than the end of 2005. We do not expect to complete our Fab 2

<sup>(2)</sup>Long-term debt includes principal and interest payments in accordance with the terms of the credit facility amended in November 2003, as well as the impact of our hedging transactions.

<sup>(3)</sup>Total amounts include expected principal and interest payments for the presented periods.

<sup>(4)</sup>These amounts primarily consist of ordered equipment that has not yet been received. In addition to these agreements, we have committed approximately \$4.5 million in standby letters of credit and guarantees to secure our Fab 2 construction and equipment obligations.

investments and achieve full production capacity of 33,000 wafer starts per month by the end of 2005. Israeli law limits the ability of the investment center to extend the five-year investment limitation. We have notified the Investment Center of our revised investment schedule, and it is currently being evaluated by the investment center. We have also informed the investment center of our reduced rate of annual investments and our lower than projected expectations for Fab 2 sales.

Securities Issuances. Since the beginning of the Fab 2 project, we have completed a series of capital raising transactions. In January 2002, we completed a sale of units in Israel, each composed of convertible unsecured subordinated debentures and options, resulting in net proceeds of approximately \$21.5 million. Each debenture is NIS 1 in principal amount, and is adjusted to reflect increases in the Israeli Consumer Price Index and bears interest at a rate of 4.7% per annum, payable yearly commencing January 20, 2003. Principal is payable in four installments beginning in January of

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2006 through 2009. Prior to December 31, 2008, the debentures are convertible into ordinary shares at a conversion rate of one ordinary share per NIS 41 principal amount of debentures. As of September 30, 2003, NIS 113,475,535 (or \$25.6 million) in convertible debentures and 2,211,596 Options (Series 1) were outstanding. In September 2002, we distributed to our shareholders and certain of our employees rights to purchase ordinary shares and warrants to purchase our ordinary shares. The rights offering resulted in net proceeds of approximately \$19.7 million. See "Material Agreements — Fab 2 Securities Issuances."

#### **Trend Information**

The semiconductor industry has historically been highly cyclical on a seasonal and on a long-term basis. On a long-term basis, the market has fluctuated, cycling through periods of weak demand, production overcapacity, excess inventory and lower sales prices and periods of strong demand, full capacity utilization, product shortages and higher sales prices. Although there can be no assurance that this trend will continue, the semiconductor industry now appears to be in the midst of a cyclical upswing. According to the Semiconductor Industry Association, worldwide sales of semiconductors increased 6.5% to \$14.4 billion in September 2003, up from \$13.6 billion in August 2003, which represented the seventh consecutive monthly increase. As a result of this recent growth in semiconductor demand, we believe that other major foundries are experiencing tight capacity due to rising orders. We also believe that U.S.-based IDMs have increased orders from major foundries because their own capacities could not handle emergent orders from clients. Two leading Taiwanese foundries recently reported that they expect to achieve overall utilization rates exceeding 90% in the fourth quarter of 2003. We believe that, like these foundries, we are well positioned to benefit from this trend, especially considering that we are one of a few semiconductor manufacturing companies that invested in new capacity during the worst downturn in the history of the semiconductor industry.

There is a trend within the semiconductor industry toward ever-smaller features. State-of-the-art fabs are currently using process geometries of 0.18 microns and below. As demand for smaller geometries increases, there is downward pressure on the pricing of larger geometry products and increasing underutilization of fabs that are limited to manufacturing larger geometry products, which results in less profitability for manufacturers of larger geometry products. Fab 1 is limited to geometries of 0.35 microns and above and Fab 2 currently operates at process geometries of 0.18 microns and produces 200-mm wafers. We must successfully complete ramp-up of production to full capacity in Fab 2 in order to successfully compete over the long term.

Quantitative and Qualitative Disclosures about Market Risk

Market risk is the risk of loss related to changes in market prices, including interest rates and foreign exchange rates, of financial instruments that may adversely impact our consolidated financial position, results of operations or cash flows.

Our primary market risk exposures relate to interest rate movements on borrowings and fluctuations of the exchange rate of the US dollar, which is the primary currency in which we conduct our operations, against the NIS, the Japanese Yen and the Euro. To manage those risks and mitigate our exposure to them, we from time to time use financial instruments, primarily collar agreements with a knock-out feature, cylinder options (call & put) and forward transactions.

All financial instruments are managed and controlled under a program of risk management in accordance with established policies. These policies are reviewed and approved by our board of directors. Our treasury operations are subject to an internal audit on a regular basis. We do not hold derivative financial instruments for speculative purposes, and we do not issue any derivative financial instruments for trading or speculative purposes.

#### Risk of Interest Rate Fluctuation

We have market risk exposure to changes in interest rates on our long-term debt obligations with floating interest rates. We primarily enter into debt obligations to support capital expenditures and needs. From time to time, we enter into interest rate collar agreements to modify our exposure to

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interest rate movements. These agreements limit our exposure to the risk of fluctuating interest rates by allowing us to convert a portion of the interest on our borrowings from a variable rate to a limited variable rate. We entered into interest rate collar agreements that expire in 2007 in the amount of \$212 million, of which \$172 million is effective as of September 30, 2003. With respect to \$172 million of the Fab 2 credit facility debt, under the terms of these collar agreements, if the LIBOR is below the floor rate of 4.28%, we will pay total interest at the fixed rate of 5.83%; if the LIBOR is between 4.28% and 5.56%, we will pay interest at the actual LIBOR plus 1.55%; if the LIBOR is between 5.56% and 7.50%, we will pay total interest at a fixed rate of 7.11%; and if the LIBOR is higher than 7.50%, we will pay the actual LIBOR rate plus 1.55%. At September 30, 2003, the LIBOR rate was 1.19%. Accordingly, as of September 30, 2003, the interest rate on the \$172 million of long-term loans covered by the collar agreements was 5.83%, and the interest rate on the \$179 million of long-term loans not subject to the collar agreements was 2.74%. These collar agreements resulted in a loss of \$4.0 million in the nine months ended September 30, 2003, of which \$2.5 million was capitalized to property and equipment. The fair value of the interest rate collar, as of September 30, 2003, was a \$12.2 million loss. Assuming a 10% upward shift in the LIBOR rate at September 30, 2003, (from 1.19% to 1.30%), the effective fair value of the \$179 million debt that is not hedged by the collar agreements, and as to which we are exposed to the risk of interest rate fluctuation, would have increased by \$0.8 million. The \$172 million debt hedged by the collar agreements would not have changed assuming such interest rate increases.

As of the date of this prospectus, our facility agreement with our banks was amended as described in "Material Agreements — Credit Facility." This analysis does not reflect the amended terms.

Under the terms of the \$40 million collar agreements to be effective as of July 2004 and the credit facility, if the LIBOR is below 2.8%, we will pay total interest at the fixed rate of 4.35%; if the LIBOR is between 2.8% and 5.5%, we will pay interest at the LIBOR plus 1.55%; if the LIBOR is between 5.5% and 7.50%, we will pay total interest at a fixed rate of 7.05%; and if the LIBOR is higher than 7.50%, we will pay the LIBOR rate plus 1.55%.

Our cash equivalents and short-term interest-bearing deposits are exposed to market risk due to fluctuation in interest rates, which may affect our interest income and the fair market value of our investments. We manage this exposure by performing ongoing evaluations of our investments in those deposits. Due to the short maturities of our investments, the carrying value approximates the fair value.

## Foreign Exchange Risk

Our main foreign currency exposures give rise to market risk associated with exchange rate movements of the US dollar, our functional and reporting currency, against the Japanese Yen, the Euro and the NIS. To protect against reductions in value and against the volatility of future cash flows caused by changes in foreign exchange rates, we utilize forward transactions and currency options to minimize part of the impact of foreign currency fluctuations on our financial position and results of operations. Most of those agreements are designated to eliminate exposure changes in the Japanese Yen and the Euro vis-à-vis the US dollar. During the nine months ended September 30, 2003, we had \$45 million options, which resulted in the nine months ended September 30, 2003 in a \$ 2.3 million gain (mostly capitalized to property and equipment). As of September 30, 2003, we had no open transactions.

We are exposed to the risk of fluctuation in the NIS/dollar exchange rate with respect to our convertible debentures and the exercise price of our Options (Series 1), which are both denominated in NIS linked to the Consumer Price Index in Israel, or CPI. As of September 30, 2003, the outstanding principal amount of the convertible debentures was NIS 116.6 million (equivalent to \$26.3 million), and the exercise price of the Options (Series 1) was NIS 41.1 (equivalent to \$9.30). The dollar amount of our finance costs (interest and currency adjustments) related to the convertible debentures will be increased if the rate of inflation in Israel is not offset (or is offset on a lagging basis) by the devaluation of the NIS in relation to the dollar. In addition, the dollar amount of any

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repayment on account of the principal of the convertible debentures will be increased as well. On the other hand, if the devaluation of the NIS against the dollar is greater than the rate of inflation in Israel, the dollar amounts we shall raise on the date of exercising our Options (Series 1) will be decreased. From the date of the issuance of the convertible debentures and Options (Series 1) in January 2002 until September 30, 2003, the Israel consumer price index increased by 5.4% while the US dollar/NIS exchange rate decreased by 3.1%.

Approximately half of the convertible debentures amount is covered by a deposit denominated in NIS and linked to the CPI. Therefore, we are exposed to the risk of fluctuations in the NIS/dollar exchange rate only for the remaining balance of the convertible debentures.

The convertible debentures bear annual interest at a fixed rate of 4.7%. The debentures are payable in four annual installments commencing January 2006. Therefore, we are not subject to exposure to interest rate fluctuations with respect to the debentures.

We enter, from time to time, into foreign exchange agreements to hedge exposure relating to Value Added Tax, grants receivables and payroll expenses denominated in NIS. The effect of these agreements during the nine months ended September 30, 2003 was immaterial. As of September 30, 2003, we had no open transactions.

We are exposed to currency risk in the event of default by the other parties of the exchange transaction. The likelihood of such default is remote, as the other parties are widely recognized and reputable Israeli banks.

# Impact of Inflation

We believe that the rate of inflation in Israel has had a minor effect on our business to date. However, our dollar costs in Israel will increase if inflation in Israel exceeds the devaluation of the NIS against the dollar or if the timing of such devaluation lags behind inflation in Israel.

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### **Business**

## Company Overview

We are a pure-play independent wafer foundry dedicated to the manufacture of semiconductors. We manufacture semiconductors using advanced production processes for our customers primarily based on third party designs and our own proprietary designs. We currently manufacture integrated circuits, or ICs, with geometries ranging from 1.0 to 0.18 microns and plan to initiate volume production in geometries of 0.13 microns during 2005. ICs manufactured by us are incorporated into a wide range of products in diverse markets, including consumer electronics, personal computer and office equipment, communications, automotive, professional photography and medical device products.

We are focused on establishing leading market share in high-growth specialized markets by providing our customers with high-value wafer foundry services. Our historical focus has been standard digital complementary metal oxide semiconductor, or CMOS, process technology, which is the most widely used method of producing ICs. We currently are focused on the emerging opportunities surrounding CMOS image sensors, embedded flash and mixed-signal technologies. Through our expertise and experience gained over a decade of operations, we differentiate ourselves in these areas by creating a high level of value for our clients through innovative technological processes, competitive manufacturing indices, such as cycle times and yields, and dedicated customer service.

Our Company was founded in 1993, when we acquired National Semiconductor's 150-mm wafer fabrication facility, or Fab 1, and commenced operations as an independent foundry with a production capacity of approximately 5,000 wafer starts per month. Since then, we have significantly modernized our facilities and equipment, which has improved our process geometries from 1.0 microns to 0.35 microns and enhanced our process technologies to include CMOS image sensors, embedded flash and mixed-signal technologies. We have also expanded our capacity through increased production in Fab 1 to approximately 16,000 wafer starts per month to meet additional customer demand. Fab 1 has been cash flow positive for the past six quarters.

We have recently completed the construction of the building and infrastructure and commenced the initial ramp-up of a second manufacturing facility, or Fab 2. Fab 2 is designed to operate in geometries of 0.18 microns and below, using advanced materials and advanced CMOS technology licensed from Motorola and Toshiba and other technologies that we might acquire or develop independently. By the end of 2003, we anticipate that Fab 2 will have production capacity of 8,500 wafer starts per month. When the production ramp-up is completed, Fab 2 is expected to have a capacity of 33,000 200-mm wafer starts per month. While we expect to continue to operate Fab 1, we anticipate Fab 2 to be the core of our future business.

## **Industry Overview**

Semiconductor devices are responsible for the rapid growth of the electronics industry over the past fifty years. They are critical components in a variety of applications, from computers, consumer electronics and communications, to

industrial, military, medical and automotive. The semiconductor industry is characterized by rapid changes in technology, frequently resulting in the obsolescence of recently introduced products. As performance has increased and size and cost have decreased, the use of semiconductors and the number of their applications have grown significantly.

Historically, the semiconductor industry was composed primarily of companies that designed and manufactured ICs in their own fabrication facilities. These companies, such as Intel and IBM, are known as integrated device manufacturers, or IDMs. In the mid-1980s, fabless IC companies, which focused on IC design and used external manufacturing capacity, began to emerge. Fabless companies initially outsourced production to IDMs, which filled this need through their excess capacity. As the semiconductor industry continued to grow, increasing competition forced fabless companies and IDMs to seek reliable and dedicated sources of IC manufacturing services. This need has been met by the development of independent companies, known as foundries, that focus primarily on providing IC manufacturing services to semiconductor suppliers. Foundry services are now used by nearly every major semiconductor company in the world, including IDMs as part of a dual-source, risk-diversification strategy.

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Semiconductor suppliers face increasing demands for new products that provide higher performance, greater functionality and smaller form factors at lower prices, which require increasingly complex ICs. To compete successfully, semiconductor suppliers must also minimize the time it takes to bring a product to market. As a result, fabless companies and IDMs are focusing more on their core competencies — design and intellectual property — and outsourcing manufacturing to foundries. In addition to the increased complexity of designs, there has also been a dramatic increase in the number of applications for semiconductors, driving significant growth in the semiconductor market.

With increased demand for these new applications, particularly in the consumer sector, the semiconductor industry is now recovering from its worst downturn in history. According to the Semiconductor Industry Association, worldwide sales of semiconductors increased 6.5% to \$14.4 billion in September 2003, up from \$13.6 billion in August 2003, which represented the seventh consecutive monthly increase. IC Insights, a market research firm, projects that the worldwide semiconductor market will grow from approximately \$141 billion in 2002 to approximately \$225 billion in 2007, representing a five-year compound annual growth rate of 10%.

As a result of this recent growth in semiconductor demand, two leading Taiwanese foundries have reported that they are experiencing tight capacity due to rising orders. These Taiwanese foundries have also reported that U.S.-based IDMs have increased their orders because their own capacities could not handle emergent orders from clients. These foundries recently reported that they both expect to achieve overall utilization rates exceeding 90% in the fourth quarter of 2003. We believe that, like these foundries, we are well-positioned to benefit from this trend especially considering that we are one of a few semiconductor manufacturing companies that invested in new capacity during the worst downturn in the history of the semiconductor industry.

The consumer sector, which currently represents 17% of semiconductor demand, is expanding worldwide with new applications and multi-functional devices, including those that incorporate CMOS image sensors, embedded flash and mixed-signal ICs. Increasingly, emerging applications, such as camera-equipped cell phones, digital still cameras and flat panel displays, are enabled by ICs manufactured using advanced process technologies.

As the semiconductor industry continues its expansion, the cost of building new fabrication facilities, or fabs, is becoming increasingly prohibitive for all but a very few companies. For example, the total cost of our Fab 2 is

currently expected to be approximately \$1.5 billion. We believe that new 300-mm wafer fabs cost approximately twice that amount. For companies to justify the enormous investment in a new fab, a high level of capacity utilization is essential to ensure that fixed costs are fully absorbed. Because independent foundries serve a large customer base they are generally well-positioned to enjoy higher utilization rates than IDMs.

The enormous costs associated with modern fabs, combined with the increasing demand for complex ICs, has created an expanding market for outsourced manufacturing offered by foundries. Foundries can cost-effectively supply the technologies involved in manufacturing advanced ICs to even the smallest fabless companies by creating economies of scale through pooling the demand of numerous customers. In addition, customers whose IC designs require process technologies other than standard digital CMOS have created a market for independent foundries that focus on providing specialized process technologies, such as CMOS image sensors, embedded flash and mixed-signal technologies. Foundries also offer competitive customer service through design, testing, and information services, often at a level previously found only at an IDM's internal facilities.

These trends have led to the rapid growth in demand in recent years for advanced semiconductor manufacturing services provided by independent foundries. According to IC Insights, the worldwide pure-play foundry market, which excludes IDMs, was \$8.6 billion in 2002 and is projected to grow to \$23.6 billion in 2007, representing a five-year compound annual growth rate of 24% — more than double the expected growth rate of the overall semiconductor market for the same period.

### The Tower Focus

We provide wafer fabrication services and technologies to fabless IC companies and IDMs and enable smooth integration of the semiconductor design and manufacturing processes. By doing so, we enable

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our customers to bring high-performance, highly integrated ICs to market rapidly and cost effectively. We believe that our technological strengths and emphasis on customer service have allowed us to develop strong positions in large, high-growth specialized markets for CMOS image sensors, embedded flash memory and mixed signal ICs. We serve as a sole source or alternative provider of foundry services.

We believe that we are a trusted, customer-oriented service provider that has built a solid reputation in the foundry industry over the last ten years. We have built strong relationships with customers, who continue to use our services, even as their demands evolve to smaller form factors and new applications. Our consistent focus on providing high-quality, value added services, including engineering and design support, has allowed us to attract customers for both our Fab 1 and Fab 2 facilities who seek to work with a proven provider of foundry services. As a result, we have a high customer retention rate, which is illustrated by our long-standing relationships with leading semiconductor suppliers such as Motorola and National Semiconductor.

Strong relationships in the industry have been an important facet of our success and will continue to be important in the future. In order to enhance these relationships, we have created relationships with partners that have made significant investments in Fab 2 to enhance mutual growth plans. These investments were made during the recent industry downturn, when most foundries were reducing capital expenditures. As a result, we believe that we are well-positioned to attract new customers and increase utilization rates as the industry recovers. In addition, our wafer partners were issued wafer credits as part of their investment in Fab 2, which provides them an incentive to outsource manufacturing of their ICs to us (see "Certain Transactions — Wafer Partner Agreements"). We plan to use Fab 2 as a

source for volume production of next generation geometries. This plant allows us to meet the evolving needs of our current customers and provide the potential for significant new relationships as semiconductor suppliers seek to meet their outsourcing needs.

We serve as a sole-source provider for most of our CMOS image sensor and embedded flash customers and also serve as an alternative, second-source provider of other foundry services. Foundry diversification is an increasingly important factor among semiconductor companies, which benefits us due to our unique location. Semiconductor companies have sought to hedge their manufacturing risk by securing production relationships with companies in different parts of the world. Our unique location in Israel, with its close proximity to Europe and its strong semiconductor R&D resources, evident through the presence of multinational corporations, such as Broadcom, Intel, Marvell, Motorola, National Semiconductor, SanDisk, Texas Instruments, and Zoran and numerous fabless IC companies, strengthens our competitive position as a second-source provider of foundry services. In addition, as foundry utilization rates peak, we expect to attract additional customers with our standard 0.18-micron process technology and future 0.13-micron process technology.

## Our Target Markets

We derived approximately 60% of our revenues for the nine-month period ended September 30, 2003 from our target specialized markets: CMOS image sensors, embedded flash and mixed-signal ICs. We are focusing on these markets because they provide a relatively high gross margin and have high growth characteristics. In addition, we are highly experienced in these markets, being an early entrant and having developed unique proprietary technologies, primarily through licensing and joint development efforts with our customers and other technology companies.

# **CMOS Image Sensors**

CMOS image sensors are ICs used to capture an image in a wide variety of consumer, commercial and industrial mass market applications, including camera-equipped cell phones, digital still and video cameras, security and surveillance cameras and video game consoles. We are currently actively involved in this mass market as well as the high-end sensor and applications specific markets, which includes applications such as studio quality megapixel digital cameras, ingestible capsule cameras for medical imaging and rearview mirrors that automatically dim to eliminate glare. While CMOS image sensors for advanced optical applications are an emerging technology, we believe that they are

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gradually becoming the preferred technology to traditional charge coupled devices, or CCDs. CCDs have historically provided superior image quality; however, advances in semiconductor manufacturing processes and design techniques have led to significant improvements in CMOS image sensor performance and image quality. These advances have resulted in smaller size circuits and better current control, making it possible to design CMOS image sensors that provide high image quality at a significantly lower cost.

As early as 1997, we recognized the market potential of using CMOS process technology for a digital camera-on-a-chip, which would integrate a CMOS image sensor, filters and digital circuitry. In entering the CMOS image sensor foundry business, we utilized research and development work that had been ongoing since 1993. Our services include a broad range of turnkey solutions and services, including sensor design services, optical characterization of a CMOS process, innovative stitching manufacturing technique and optical testing and packaging. CMOS image sensors manufactured by us deliver outstanding image quality for a broad spectrum of digital imaging

applications. Currently, we are one of few foundries that manufacture CMOS image sensors and, as such, believe that we have developed leading market position.

According to In-Stat/MDR, a market research firm, the CMOS image sensor market is expected to grow from \$184 million in 2002 to \$547 million in 2007, representing a five-year compound annual growth rate of 24%. In-Stat/MDR also forecasts that CMOS image sensors will grow from approximately 30 million units in 2002 to 221 million units in 2007, representing a five-year compound annual growth rate of 49%. Two of the markets expected to provide much of the growth for CMOS image sensors are camera-equipped cell phones and digital still cameras.

### Embedded Flash

Flash memory is a constantly powered nonvolatile memory that can be erased and reprogrammed in units of memory called blocks. The IC of flash memory is organized so that a section of memory cells may be erased in a single action (or "flash.") Applications for flash memory products range from most types of portable electronic equipment devices to high volume mass storage of data. Flash is particularly suitable for applications such as handheld devices, combining the need for portability, high density, ruggedness and lower power requirements. Flash memory products are also well-suited for audio products such as digital answering machines and MP3 players, as well as other applications including networking devices, digital cameras, personal computer motherboards and portable memory devices.

Embedded flash is the combination of flash memory with other components, such as other memory, logic and analog, on a single IC to provide speed, functionality and form factor advantages and reduce system cost. Embedded flash memory products are used in communications, consumer, industrial, military and automotive applications. End products include networks, base stations, servers, microcontrollers, toys, set-top boxes, DVD players, cell phones and smart cards.

In 1997 we entered into a strategic investment and technology agreement with Saifun, pursuant to which we currently own approximately a 10% equity stake in Saifun. Together we brought to market a new non-volatile memory technology, NROM<sup>TM</sup>. NROM technology enables the implementation of ultra high-density flash arrays using 0.5-micron CMOS process, and is particularly suitable for embedding flash arrays with standard CMOS logic, as well as for commodity memories. We have continued to strengthen our specialized technology service offering and leadership position in the embedded flash market, most recently by partnering with Matsushita for joint development of 0.18-micron embedded microFLASH technology. Our microFLASH technology, based on Saifun's patented NROM technology, provides greater memory cell density than other currently available flash architectures for given design rule generation, permitting an approximately four-fold reduction in the size of the memory cell for stand-alone memories and embedded applications in a given geometry.

IC Insights forecasts an increase in the worldwide flash memory market from \$7.8 billion in 2002 to \$20.0 billion by 2007, representing a five-year compound annual growth rate of 21%. According to Semico Research, a market research firm, embedded flash in microcontrollers is expected to grow from \$4.0 billion in 2002 to \$17.0 billion in 2007, representing a five-year compounded annual growth rate of 34%.

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Mixed-signal ICs are an essential part of any electronic system that interacts with the real world. Analog ICs monitor and manipulate real world signals such as sound, light, pressure, motion, temperature and electrical current and are used in a wide variety of electronic products such as PCs, cell phones, DVD players, automotive electronics and medical imaging equipment. Digital ICs perform arithmetic functions on data represented by a series of ones and zeroes, provide critical processing power and have enabled many of the computing and communication advances of recent years. Mixed-signal ICs combine analog and digital semiconductor functionality on a single IC to enable digital systems to interface with the real world. As these digital systems proliferate, there is a growing need for analog functionality to enable them to interface with the real world.

We focus on providing high-quality mixed-signal capabilities, as this technology is a cornerstone to both CMOS image sensor and embedded flash applications. Our expertise in mixed signal has been further enhanced through several strategic initiatives. In 1998, Motorola transferred its 0.6- and 0.8-micron analog and mixed-signal processes to our Fab 1 facility. Additionally, in 2002 we signed an agreement with Interuniversity MicroElectronics Center, or IMEC, for the technology transfer and licensing of analog modules and applicable technologies for our Fab 2. In May 2003, we licensed a wide array of intellectual property from Chipidea, whereby Chipidea will port its IP to our Fab 2. Our customers can now use Chipidea's extensive IP portfolio with our advanced technology for a state-of-the-art solution that meets their analog and mixed-signal design needs.

According to Dataquest, a market research firm, the worldwide general-purpose analog and mixed-signal IC market was \$9.3 billion in 2002 and is projected to grow to \$17.6 billion in 2007, representing a five-year compound annual growth rate of 14%.

### Our Strategy

We focus on establishing leading market position in specialized markets by providing our customers with high-value wafer foundry services. We believe that our success and profitability depend on the success of our customers. Therefore, to maintain and enhance our position as a specialized technology market leader, we pursue a business strategy with a focus on a partnership business model, designed to accommodate our customers' business objectives and needs and to promote their interests as our partners. The key elements of our strategy are:

Establishing Leading Market Share for Specialized, High Growth Applications. We focus on the emerging opportunities surrounding CMOS image sensors, embedded flash and mixed-signal ICs. In addition to their high gross margins, we are focusing on these markets because of their large size and high growth characteristics. With our advanced manufacturing technologies and service capabilities, we have established a strong position in these markets with industry leaders, including Kodak, Matsushita, Motorola, National Semiconductor, SanDisk and Zoran.

Pursuing a Partnership Business Model. We believe that the use of our customers as an equity financing source, such as in the case of Alliance Semiconductor, Macronix, SanDisk and QuickLogic (to which we refer as our "wafer partners"), will strengthen our long-term relationships with these parties, as our growth objectives are closely aligned. We granted our existing wafer partners a right to purchase up to approximately 50% of the capacity of our Fab 2 facility, and we believe that their ownership interest in us provides them added incentive to utilize this capacity.

Maintaining Our Commitment to Customer Service. We place significant emphasis on providing world-class customer service, research and development, as well as engineering support and execution of complex process and product transfers, while maintaining reduced cycle times and higher product yields. We believe that our customer service has helped us differentiate ourselves from our larger competitors, as demonstrated by Motorola naming us "Foundry of the Year" in 1999 and awarding us "Gold Supplier" status in 2000, 2001 and 2002. By working closely with our customers and helping them achieve their objectives, we are able to deliver our service offerings at lower cost and with shorter time-to-market than our competitors. As a result, we have a high customer retention rate,

which is illustrated by our long-standing relationships with leading semiconductor suppliers such as Fairchild Semiconductor, Motorola and National Semiconductor. We also serve as the sole-source provider for certain customers' products, such as QuickLogic, which we believe rely on us for the manufacture of all of their ICs due to our commitment to develop technologies specific to their needs.

Expanding Our Technological Expertise through Licensing and Joint Development Efforts with Leading Technology Companies. In addition to our independent research and development resources, we seek to partner with technology companies to expand our core strengths in CMOS image sensors, embedded flash and mixed-signal technologies by combining our proprietary technology with that of leading technology companies. In the past, this arrangement has been highly successful. Our high-quality CMOS image sensor technology was used to optimize Kodak's complex image-sensor design for volume production, and this project has, in turn, enhanced our CMOS image sensor technology. A significant number of our embedded flash solutions, which offer significant form factor and cost advantages relative to the competition, were developed through our relationships with Matsushita and Saifun. In addition, our mixed-signal offering for 0.18-micron CMOS processes has been improved through the use of proprietary technology from Toshiba, and our analog capabilities have been improved through a technology transfer and licensing arrangement with IMEC. These relationships have been an important part of creating a competitive advantage in these applications, and we are continuing to pursue similar relationships in the future. For example, to enhance our capabilities at Fab 2, we entered into technology transfer agreements with Motorola and Toshiba that will enable us to provide advanced 0.18- and 0.13-micron CMOS technologies. These relationships also allow us to minimize R&D expenses for developing new technologies.

Enhancing Our Global Sales and Marketing Efforts. We focus our sales and marketing efforts on technology and service driven leading customers, with sophisticated products in industries with high gross margins and growth potential. Over the past year, we have significantly increased our global sales and marketing efforts in order to establish worldwide coverage to support the ramp-up of our Fab 2 facility. As part of this effort, we have sales personnel located in the United States, Israel and Japan, as well as a worldwide network of independent sales representatives. We believe that this presence will allow us to address significant market opportunities worldwide.

Maximizing Capacity Utilization. We seek to maximize capacity utilization by attracting new customers and rapidly expanding our capabilities for high-margin advanced technologies through the construction of Fab 2. Over the course of our history, our business model has involved targeting capacity growth in standard digital CMOS technology and then migrating that capacity to specialized, high-end technologies. Fab 1 provides a steady source of funds, as it generates cash at even modest production levels. In order to optimize production levels of Fab 1, we seek to operate the facility at close to maximum capacity with the most advanced technologies it can produce. Fab 2 is the core focus of our future efforts, and we are ramping up production in the facility to meet customer demand. Fab 2 seeks to maximize returns by addressing the market for more advanced geometries, which have relatively higher gross margins. In order to consistently meet this demand, we have plans for both capacity expansion at the current 0.18-micron geometry and volume production at 0.13-micron geometry by 2005.

Becoming a Preferred Second-Source Foundry Service Provider. We serve as a sole-source provider for many of our customers for certain of their products and devices, and we also offer our services as an alternative or second-source provider of foundry services. Foundry diversification is an increasingly important factor among semiconductor companies, including both IDMs and fabless IC companies. In previous industry cycles when semiconductor demand was high, there was a shortage of IC manufacturing capacity. Because the semiconductor industry is now recovering from its worst downturn in history, we aim to take advantage of an expected capacity shortage during this upswing by becoming a preferred second-source provider of IC manufacturing services. In particular, as foundry utilization rates peak and available capacity decreases at leading Asian foundries, we expect to attract new customers with our

standard 0.18-micron process technology and future 0.13-micron process technology.

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### Customers, Marketing and Sales

Our marketing and sales strategy seeks to aggressively expand our global customer base to take advantage of the current upswing in the semiconductor industry. To achieve this objective, we match our standard digital CMOS technology to the industry benchmark and differentiate ourselves based on customer service, design support and expertise in specialized technologies, such as CMOS image sensors, embedded flash and mixed signal. We have marketing and sales personnel in the United States, Japan and Israel. The group in Israel is responsible for covering Israel, Europe and Taiwan. Our marketing and sales staff is supported by independent sales representatives, located throughout the world, who have been selected based on their understanding of the semiconductor marketplace.

Our sales cycle is generally 18-24 months for new customers and can be as short as 9-12 months for existing customers. The typical stages in the sales process from initial contact until production are:

technical evaluation;

• product design to our specifications including integration of third party intellectual property;

photomask design specification;

silicon prototyping;

assembly and test;

validation and qualification; and

production.

The primary customers of our foundry services are fabless semiconductor companies and IDMs. A significant portion of our product sales are made pursuant to long-term contracts with our customers, under which we have agreed to reserve manufacturing capacity at our production facilities for such customers. When we commenced business in March 1993, our only customer was National Semiconductor. Since then, we have succeeded in adding a significant number of new customers, including many industry leaders and a number of Taiwanese companies who preferred our solution to that offered locally. During the nine months ended September 30, 2003, our primary customers were:

Alliance Semiconductor Macronix QuickLogic Comtech AHA Micron SanDisk

Cypress Semiconductor Motorola STMicroelectronics

FillFactory National Semiconductor Xemics

Kodak ON Semiconductor

During the nine months ended September 30, 2003, National Semiconductor, Motorola, FillFactory and SanDisk contributed 26%, 15%, 12% and 11% of our revenues, respectively. In 2002, National Semiconductor, Matsushita and Motorola contributed 31%, 16% and 13% of our revenues, respectively. In 2001, National Semiconductor and Motorola contributed 30% and 17% of our revenues, respectively. As foundry utilization rates peak with the industry recovery, we expect to attract additional customers as available capacity decreases at leading Asian foundries.

In addition to further developing our customer base, we have also made a concentrated effort to expand the geographical diversity of our sales. The percentage of our sales from customers located outside the United States was 10%, 31%, 38% and 28% in the years ended December 31, 2000, 2001 and 2002 and the nine months ended September 30, 2003, respectively. As we have successfully expanded our customer base with customers located in Asia-Pacific and in Europe, we believe that a substantial portion of our sales will continue to come from customers located in the United States. We experienced a significant increase in our Asia-Pacific sales in 2002 due to payments made to us by Matsushita in connection with our technology agreement with them. The following table sets forth the geographical distribution, by percentage, of our net sales for the periods indicated:

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	Nine	Nine Year Ended December		ber 31,
	Months			
	Ended			
	September			
	30, 2003	2002	2001	2000
United States	72%	62%	69%	90%
Asia-Pacific	9	25	18	7
Europe	18	11	10	3
Israel	1	2	3	
Total	100%	100%	100%	100%

We currently allocate a portion of our wafer manufacturing capacity in Fab 2 to certain customers under several types of agreements. We are also obligated to make capacity available to customers under certain other agreements (See "Certain Transactions — Wafer Partner Agreements"). Some of our primary customers are also our shareholders.

# Competition

The global semiconductor foundry industry is highly competitive. We compete with other dedicated foundries, including Taiwan Semiconductor Manufacturing Corporation, United Microelectronics, Chartered Semiconductor Manufacturing; emerging and existing Chinese, Korean, Malaysian and Taiwanese foundries, including Semiconductor Manufacturing International Corp., DongBu, Anam, Hynix, Powerchip Semiconductor and Silterra; other specialized foundries, such as AMI Semiconductor, Jazz Semiconductor and X-Fab; and IDMs and end-product manufacturers that produce ICs for their own use and/or allocate a portion of their manufacturing capacity to foundry operations.

We believe that the principal elements of competition in the wafer foundry market are:

- technical competence;production quality;time-to-market;
- device and end-product price;
  - available capacity;device yields;
- design and customer support services;
- access to intellectual property; and
- research and development capabilities.

Many of our competitors have greater manufacturing capacity, multiple manufacturing facilities, more advanced technological capabilities, a more diverse and established customer base, greater financial, marketing, distribution and other resources and a better cost structure than ours.

We seek to compete primarily on the basis of technology, production quality, device yields and service. We believe we have a differentiated service offering in specialized markets, which enables us to effectively compete with larger IC manufacturers.

### Wafer Fabrication Services

Wafer fabrication is an intricate process that consists of constructing layers of conducting and insulating materials on raw wafers in intricate patterns that give the IC its function. IC manufacturing requires hundreds of interrelated steps performed on different types of equipment, and each step must be completed with extreme accuracy for finished ICs to work properly. The process can be summarized as follows:

Circuit Design. IC production begins when a fabless IC company or IDM designs the layout of a device's components and designates the interconnections between each component. The result is a

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pattern of components and connections that defines the function of the IC. In highly complex circuits, there may be more than 35 layers of electronic patterns. After the IC design is complete, we provide these companies with IC manufacturing services.

Mask Making. The design for each layer of a semiconductor wafer is imprinted on a photographic negative, called a reticle or mask. The mask is the blueprint for each specific layer of the semiconductor wafer.

IC Manufacturing. Transistors and other circuit elements comprising an IC are formed by repeating a series of processes in which a photosensitive material is deposited on the wafer and exposed to light through a mask. Advanced IC manufacturing processes consist of hundreds of steps, including photolithography, oxidation, etching and stripping of different layers and materials, ion implantation, deposition of thin film layers, chemical mechanical polishing and thermal processing. The final step in the IC manufacturing process is wafer probe, which involves visually and electronically inspecting each individual IC in order to identify those that are operable for assembly.

Assembly and Test. After IC manufacture, the wafers are transferred to assembly and test facilities. In the assembly process, each wafer is cut into dies, or individual semiconductors, and tested. Defective dies are discarded, while good dies are packaged and assembled. Assembly protects the IC, facilitates its integration into electronic systems and enables the dissipation of heat. Following assembly, the functionality, voltage, current and timing of each IC is tested. After testing, the completed IC is shipped to the IC supplier or directly to its final destination.

# **Manufacturing Processes**

We manufacture ICs on silicon wafers, generally using the customer's proprietary circuit designs. In some cases we use third-party designs or our own proprietary product design. The end product of our manufacturing process is a silicon wafer containing multiple identical ICs. In most cases, our customer assumes responsibility for dicing and assembly. Although we are an independent foundry specializing in wafer fabrication, we offer our customers the option to purchase from us finished semiconductor products that have been assembled and tested. In these cases, we

take responsibility for the production and delivery of finished IC products to our customer on a turnkey basis and subcontract some or all of the dicing, assembly and testing functions to third parties. We also maintain limited assembly capabilities for manufacturing prototype units to facilitate customer evaluation and thereby accelerate new product introduction.

We manufacture ICs using CMOS process technology. CMOS is currently the dominant semiconductor manufacturing process because it requires lower power than other technologies and allows dense placement of components onto a single IC. The low power consumption and high-density characteristics of the CMOS process allow the continued development of high performance ICs that are smaller and faster. We believe that our specialized process technology distinguishes our IC manufacturing services and attracts many industry-leading customers. The specific process technologies that we focus on include:

CMOS Image Sensors. Our advanced CMOS image sensor process is intended to meet the established growing demand for optical sensors used in consumer, industrial, medical and automotive applications. Our dedicated manufacturing and testing processes assure consistently high electro-optical performance of the integrated sensor through wafer-level characterization. Our CMOS image sensor process has demonstrated superior optical characteristics, excellent spectral response and high resolution and sensitivity. The ultra-low dark current, high efficiency and accurate spectral response to our photodiode enable faithful color reproduction and acute detail definition.

In addition, our innovative "stitching" technology enables semiconductor exposure tools to manufacture single ultra high-resolution CMOS image sensors containing millions of pixels at sizes far larger than their existing field. Our 0.5-and 0.35-micron CMOS image sensor processes permit the customer to create high-quality solutions and integrate a product's CMOS analog and logic circuitry together with the sensor pixel array all on one chip, thereby facilitating miniaturization, reducing power consumption and increasing performance. We are currently developing a 0.18-micron CMOS image sensor process to address the rapidly growing market for camera-embedded cell phones and low end digital cameras.

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Embedded Flash. Our microFLASH technology, based on Saifun's patented NROM technology, provides greater memory cell density than other currently available flash architectures for given design rule generation, permitting an approximately four-fold reduction in the size of the memory cell for stand-alone memories and embedded applications in a given geometry. The relative simplicity of our microFLASH manufacturing process enables the technology to offer cost advantages over competing flash technologies for high density memories. Using our 0.5-micron technology, we have introduced the first of our microFLASH processes into production with the manufacture of a 2 megabit stand-alone memory device and embedded multi-time programming modules, with a limited number of rewrite cycles.

Mixed Signal. We have developed the Tower Mixed-Signal Design Kit, which contains a comprehensive characterization of a wide range of analog devices, providing our customers with the ability to design mixed-signal ICs for their specific needs. In addition, we developed certain mixed-signal features for use with our 0.18-micron process and are working to develop more features.

Manufacturing Facilities

Fab 1

We acquired our Fab 1 facility from National Semiconductor in March 1993 when National Semiconductor, which had operated the facility since 1986, sold the facility as part of a worldwide restructuring of its manufacturing operations. We occupy the facility pursuant to a long-term lease from the Israel Lands Authority that expires in 2032.

Due to the sensitivity and complexity of the semiconductor manufacturing process, a semiconductor manufacturing facility requires a special "clean room" in which most of the manufacturing functions are performed. Our Fab 1 facility includes an approximately 51,900 square foot clean room.

Since we commenced manufacturing at Fab 1, we have increased our manufacturing capacity from 5,000 wafer starts per month, using 1.25-micron and 1.0-micron processes, to approximately 16,000 wafer starts per month based on our current product mix, which is primarily concentrated on our 0.35-micron, 0.5-micron and other specialized processes. However, our exact capacity is variable and depends on the combination of the processes being used and may be significantly lower at certain times as a result of certain of our combinations. In general, our ability to increase our manufacturing capacity has been achieved through the addition of equipment, improvement in equipment utilization, the reconfiguration and expansion of the existing clean room area and the construction of an additional clean room area within the building shell of Fab 1. Approximately 60% of our Fab 1 facility is capable of 0.5-micron and below process technology.

### Fab 2

In January 2001, we commenced construction of Fab 2, our new advanced wafer fab adjacent to Fab 1 in Migdal Haemek. Fab 2 offers IC manufacturing services utilizing advanced materials and a 0.18-micron process technology we licensed from Toshiba. We have also licensed 0.13-micron process technology from Motorola, which we are developing and expect to offer in the future. The overall clean room area in Fab 2 is approximately 100,000 square feet. When the ramp-up of production is completed, we expect that Fab 2 will have a capacity of up to 33,000 200-mm wafer starts per month. We currently expect that the total cost of the construction, equipping of the facility and ramp-up of the manufacturing line will be approximately \$1.5 billion, of which approximately \$824 million has been expended through September 30, 2003. The land on which Fab 2 is located is subject to a long-term lease from the Israel Lands Authority that expires in 2049.

Since 2000, we have invested significantly in the purchase of fixed assets, primarily in connection with the construction of Fab 2, technology advancement and capacity expansion. For the nine-month period ended September 30, 2003, capital expenditures for the purchase of plant and equipment were approximately \$135 million before related Investment Center grants of \$24 million. Capital expenditures in fiscal 2002, 2001 and 2000 were approximately \$209 million, \$336 million and \$64 million, before related Investment Center grants of \$37 million, \$67 million and \$21 million, respectively.

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# Procurement and Sourcing

Our manufacturing processes use many raw materials, including silicon wafers, chemicals, gases and various metals. These raw materials generally are available from several suppliers. In many instances, we purchase raw materials from a single source. In connection with our technology advancement plans, including our Fab 2 business plan, we expect to continue to make purchases of semiconductor manufacturing equipment.

## Research and Development

Our future success, depends to a large degree, on our ability to continue to successfully develop and introduce to production, advanced process technologies that meet our customers' needs. Our process development strategy relies on process technologies that we primarily license from third parties (See "— Material Licensing Arrangements"); develop at our customers' request or in cooperation with our customers; and internally develop utilizing intellectual property licensed from third parties.

The completion of the construction of Fab 2 and qualification of advanced CMOS process technologies in geometries of 0.18 microns have enabled us to focus on development of process technologies in the specialized CMOS image sensor, embedded flash and mixed-signal markets. Our technology alliances with leading semiconductor suppliers contribute to our development of new process technologies in Fab 2. For example, our joint development alliance with Matsushita in May 2002 has accelerated the development of our 0.18-micron microFLASH technology, which is expected to be offered in Fab 2 in 2005. In addition, our technology transfer and licensing agreement entered into in January 2002 with IMEC enables us to offer certain advanced analog and mixed-signal technologies for use in Fab 2 in geometries of 0.18 microns for the manufacture of components used in products such as cell phones.

From time to time, at a customer's request, we develop a specialty process module, which we use for such customer on an exclusive basis, and, if permitted under our agreements with our customers, we then add it to our process offering. In 2001 and 2002, in cooperation with a customer, and using its know-how and IP, we developed an enhanced 0.35-micron CMOS image sensor process to be used exclusively for this customer. Production ramp on this process is currently expected to start by the end of 2003.

Our research and development activities have related primarily to our process development efforts and have been sponsored and funded by us with some participation by the Israeli government. Research and development expenses for the years ended December 31, 2000, 2001, 2002 and the nine months ended September 30, 2003 were \$9.0 million, \$9.6 million, \$17.0 million and \$12.6 million, net of government participation of \$0.9 million, \$1.3 million, \$1.4 million and \$0.9 million, respectively. In addition, we have paid a total of \$37.0 million to Toshiba and Motorola in connection with the transfer of process technologies for use in Fab 2.

As of September 30, 2003, we employed 160 professionals in our research and development department, 27 of whom have PhDs. In addition to our research and development department, located at our facilities in Migdal Haemek, we maintain a design center in Netanya, Israel.

### Material Licensing Arrangements

We constantly seek to strengthen our technological expertise through relationships with technology companies and silicon suppliers. We seek to expand our core strengths in CMOS image sensors, embedded flash and mixed-signal technologies by combining our proprietary technology with those of other technology companies. A main component of our process development strategy is to acquire licenses to standard CMOS technologies and cell libraries from leading designers, such as Motorola and Toshiba, and further develop specialized process through our internal design teams. The licensing of these technologies has enormously reduced our internal development costs.

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## **CMOS Process Technology Platform**

We have licensed an array of process technologies through the following arrangements:

Toshiba. In April 2000, we entered into a technology transfer agreement with Toshiba, pursuant to which Toshiba has and will transfer to us certain advanced CMOS technologies for use in Fab 2. In exchange for certain license and technology transfer fees and royalties, Toshiba has and will provide us with recipes, know-how and patent licenses and has trained a group of our engineers and managers. Subject to prior termination for cause by Toshiba, our licenses under the agreement with Toshiba are perpetual. Based on Toshiba's 0.18-micron CMOS process technology, we have internally developed an enhanced industry compatible version of the process technology.

Motorola. In September 2002, we entered into a technology transfer and development agreement with Motorola, pursuant to which Motorola has and will transfer to us its 0.13-micron HiPerMOS7 CMOS process technology for Fab 2 as well as co-develop with us an industry-standard compatible version of the process technology. Subject to prior termination for cause by Motorola, our licenses under the technology transfer agreement with Motorola are perpetual. Foundation IP (Libraries)

To better serve our customers design needs in advanced CMOS processes, we have entered into a series of agreements with leading providers of physical design libraries. These libraries are basic design building blocks, such as standard cells, interface input-output (I/O) cells and software compilers for the generation of on-chip embedded memories arrays. To achieve optimal performance, these libraries must be customized to work with our manufacturing process and are used in virtually every digital chip design of our customers.

• Synopsys. In June 2001, we entered into an agreement with Synopsys (formerly, Avant!) under which Synopsys has developed libraries for our 0.18-micron process technology. The Synopsys libraries are available to our customers free of charge, and multiple customers use them in producing their ICs at Tower.

Artisan Components. In June 2002, we entered into a master services and license agreement with Artisan Components. Under this agreement, Artisan Components has developed a suite of library products for our 0.18-micron process technology. Artisan Components is licensing its libraries to our customers free of charge and multiple customers are using the Artisan Components libraries in their chip design for manufacturing at Tower.

**Embedded Processors** 

To enable our customers' system-on-chip, or SoC, designs a low-risk, low-cost, fast time-to-market solution we offer them process-optimized silicon-proven embedded processors from world leaders in embedded processors.

ARM. In November 2002, we joined ARM's Foundry License Program. Through the ARM Program, our customers have gained access to two of ARM's most widely used 32-bit embedded microprocessor cores, or elements, which have been optimized and tested to work on our 0.18-micron manufacturing process. As ARM cores are the most widely used embedded microprocessors today, our agreement with ARM provides our customers a low-risk, low-cost solution for designing and manufacturing advanced ARM-based SoCs at Tower. ParthusCeva. In December 2001, we signed an agreement with ParthusCeva for the customization of their Teak and XperTeak DSP-core for Tower's 0.18-micron manufacturing process. Under this agreement, ParthusCeva has developed DSP macrocells, which are available for the use of our customers' SoCs from ParthusCeva. Mixed-signal Technologies

To address a variety of applications for mixed-signal ICs, such as use in cell phones, we have developed strong mixed-signal process capabilities as well as proven mixed-signal IP components.

IMEC. In January 2002, we entered into a technology transfer and licensing agreement with IMEC pursuant to which we acquired certain advanced analog and mixed-signal process technologies to complement our CMOS process technology capabilities in the 0.18-micron geometry. The mixed-signal offering developed pursuant to this agreement is available to our customers.

Cadence Design Systems. In order to help our customers meet time-to-market constraints, we are providing them with a seamless transition from design to silicon using Cadence Design Systems Process Design Kit, or PDK. Under our agreement with Cadence Design Systems signed in 2001, Cadence Design Systems has developed a mixed-signal PDK for the use of our mixed-signal customers. PDK is a process specific analog-mixed signal library designed to work with the Cadence Design Systems custom IC tools and can be used to create analog mixed-signal ICs. Embedded Non-Volatile Memories

To enhance our strength in embedded non-volatile memories in the 0.18-micron process node, we are collaborating with leaders in embedded non-volatile memory technologies to address the market needs in both the high-end and the low-end of the spectrum.

Chipidea Microelectronics. In January 2003, we entered into a license and design agreement with Chipidea Microelectronics, a Portuguese corporation that designs and sells various types of analog and mixed-signal semiconductor intellectual property cores or elements.

Matsushita. In June 2002, we entered into an agreement with our development partner, Matsushita, for the joint development of 0.18-micron embedded microFLASH technology.

Virage Logic. In March 2002, we entered into a development agreement with Virage Logic, a company specializing in embedded memory technology. Under this agreement, Virage Logic has successfully developed a suite of SRAM and ROM memory compilers for our 0.18-micron process technology, which are available for licensing by our customers. Presently, multiple customers' products that use Virage Logic's memory products are in production at Fab 2. Environmental Matters

Our operations are subject to a variety of laws and governmental regulations in Israel relating to the use, discharge and disposal of toxic or otherwise hazardous materials used in our production processes. Failure to comply with these laws and regulations could subject us to material costs and liabilities, including costs to clean up contamination caused by our operations.

We are currently operating under a conditional permit from the Israeli Ministry of Environmental Affairs concerning the concentration of fluoride in our wastewater. We believe that we are currently in compliance with the terms of our permit with one exception: we are monitoring the levels of fluoride in accordance with an oral understanding with the Israeli Ministry of Environmental Affairs concerning how often we monitor the levels of fluoride, resulting in our monitoring the levels of fluoride less frequently than required by the written terms of our permit. There have been instances in the past where we were not in compliance with these restrictions, and, despite our best efforts, there may be future instances of non-compliance. We are also in discussions with the Israeli Ministry of Environmental Affairs regarding the possibility of easing of conditions set forth in our permit. If we cannot maintain our compliance with the conditions set forth in our permit or in our other understandings with the Ministry, we may be required to allocate financial resources for the installation of a waste treatment system in order to be in compliance with all the conditions. We estimate that such a waste treatment system would cost approximately \$100,000. We believe that we are currently in compliance in all other material respects with applicable environmental laws and regulations.

# **Employees**

The following table sets forth for the last three fiscal years, the number of our employees engaged in the specified activities.

	As of			
	September		As of	
	30,	December 31,		
	2003	2002	2001	2000
Process and Product Engineering, R&D, Design	375	375	299	183
Manufacturing, Operations	619	94	78	306
Manufacturing Support	124	189	154	191
Administration, Marketing, Finance	84	99	108	109
Fab 2 Construction & Technology Transfer	49	438	409	142
Total	1,251	1,195	1,048	931

We also use temporary employees as necessary. As of September 30, 2003, we had approximately 100 temporary employees.

Except for an arrangement regarding pension contributions, we have no collective bargaining agreements with any of our employees. However, by administrative order, certain provisions of the collective bargaining agreements between the Histadrut (General Federation of Labor in Israel) and the Coordination Bureau of Economic Organizations, relating primarily to the length of the work day, minimum wages, pension contributions, insurance for work-related accidents, procedures for dismissing employees, determination of severance pay and other conditions of employment, are applicable to our employees. In accordance with these provisions, the salaries of our employees are partially indexed to the Consumer Price Index in Israel, depending on the rate of increase of the Consumer Price Index.

We generally provide our employees with benefits and working conditions beyond the minimum requirements. We consider our relationship with our employees to be good, and we have never experienced a labor dispute, strike or work stoppage.

### **Legal Proceedings**

In July 2003, we and several of our directors and shareholders were named as defendants in a securities class action complaint filed in the United States District Court for the Southern District of New York. The plaintiffs have asserted claims arising under the Securities Exchange Act of 1934, alleging misstatements and omissions made by the defendants in materials sent to our shareholders with respect to the approval of an amendment to the investment agreements with our Fab 2 investors. The plaintiffs seek damages in unspecified amounts, which could be substantial, and unspecified rescissory relief. We believe the complaint is without merit and intend to defend ourselves vigorously. Any liability we incur in connection with this complaint could materially harm our business and financial position and, even if we defend ourselves successfully, there is a risk that management distraction in dealing with this complaint could harm our results.

# Management

# Directors and Senior Management

The following table sets forth certain information with respect to our executive officers and members of our board of directors:

Name	Age	Title
<b>Executive Officers</b>		
Carmel Vernia	51	Chief Executive Officer
Amir Harel	41	Vice President and Chief
		Financial Officer
Doron Simon	38	President, Tower
		Semiconductor USA
Dr. Itzhak Edrei	44	Vice President of Research
		and Development
Rafi Nave.	53	Vice President of Customer
		Services
Erez Taoz	49	Vice President, Fab 2
		General Manager
Eli Lazar	52	Vice President of Human
		Resources, Logistics and
		Information Systems
Rafi Mor	39	Vice President, Fab 1
		Manager
Directors		
Carmel Vernia	51	Chairman of the Board
Idan Ofer	49	Director
Ehud Hillman	50	Vice Chairman
Dr. Eli Harari	58	Director
Miin Wu	55	Director
N.D. Reddy	64	Director
Hans Rohrer	53	Independent Director
Zehava Simon	45	Independent Director

Carmel Vernia has served as the Chairman of our Board of Directors and Chief Executive Officer since June 1, 2003. From 2000 to 2002, Mr. Vernia served as the Chief Scientist in the Government of Israel's Ministry of Industry and Trade. Prior to that, he spent 16 years with Comverse Technology in various positions, culminating with his appointment to the dual positions of Chief Operating Officer of Comverse (Nasdaq: CMVT) and Chief Executive Officer of Verint Systems (Nasdaq: VRNT). Mr. Vernia earned an MS in electrical and computer engineering from the University of California, Davis and a BS in electrical engineering from the Technion – Israel Institute of Technology. Mr. Vernia also serves as a director of Saifun Semiconductors and Persay.

Amir Harel joined Tower in December 1998 and assumed the office of Vice President and Chief Financial Officer in January 1999. From July 1994 through November 1998, Mr. Harel was Secretary and Chief Financial Officer of Elbit Vision Systems Ltd. From December 1988 through June 1994, Mr. Harel held various finance management positions at Elbit Ltd.

Doron Simon has been President of Tower Semiconductor USA since April 2001. Since 1993, Mr. Simon has served in various capacities, including Director of our Customer Service, Director of our Planning and Turnkey Operations and Director of our Worldwide Sales Operations. Prior to 1993, Mr. Simon was employed by National Semiconductor in Migdal Haemek as their Production Control Manager.

Dr. Itzhak Edrei was appointed Vice President of Research and Development in August 2001, having served as Director of Research and Development since 1996. From 1994 to 1996, Dr. Edrei served as our Device and Yield Department Manager. Prior to joining Tower, Dr. Edrei was employed by National Semiconductor as Device Section Head.

Rafi Nave was appointed Vice President of Customer Services in August 2003. From 1996 to 2003, Mr. Nave served as Vice President of Research and Development for NDS Group. From 1974 to 1995,

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Mr. Nave was employed by Intel Corporation in a variety of positions of increasing responsibility, among them chip design engineer and General Manager of Intel's design center in Israel. Mr. Nave earned master and bachelor degrees in electrical engineering from the Technion.

Erez Taoz was appointed Vice President and Fab 2 General Manager in March 2003, having served as VP and Fab 1 General Manager since August 2001 and as Director of Fab 1 since 1999. Mr. Taoz joined Tower in 1996 as our Director of Manufacturing. Prior to that time, Mr. Taoz served as Director of Manufacturing at Cyclone Aviation Products.

Eli Lazar was appointed Vice President of Human Resources, Logistics and Information Systems, having served as Director of that department since 1996. Prior to that time, Mr. Lazar had over 15 years of experience as Vice General Manager at the College of Management and as Human Resources Manager at the National Semiconductor Design Center at Hertzliya.

Rafi Mor was appointed Vice President and Fab 1 Manager in August 2003, having served as Senior Director and Fab 1 Manager since March 2003. From November 2000 to March 2003, Mr. Mor served as Senior Director of Process Device & Yield of Fab 1. From 1998 to 2000, Mr. Mor served as Director of Equipment Reliability & Support of Fab 1. Previously, Mr. Mor was employed by National Semiconductor in various engineering and management capacities.

Idan Ofer joined our Board of Directors in June 1999 and served as Chairman of the Board from January 2000 until May 2003. Mr. Ofer serves on the Stock Option and Compensation Committee. Mr. Ofer has served as Chairman of the Board of Directors of Israel Corp., which wholly owns our current principal shareholder, since April 1999. Mr. Ofer also serves as a director of several public subsidiaries of Israel Corp. In addition to his positions within Israel Corp., Mr. Ofer currently serves as a director of several companies engaged in venture capital and energy projects.

Ehud Hillman served on our Board from October 1996 through August 1999 and was reappointed to the Board in January 2000. In January 2001, Mr. Hillman was appointed Vice Chairman of the Board. Mr. Hillman serves on the

Tender Committee. Since March 2001, Mr. Hillman has served as President and Chief Executive Officer of ICTech, the technology subsidiaries holding company of Israel Corp., which is our current principal shareholder. Mr. Hillman served as Chief Financial Officer of Israel Corp. from September 1996 to 1997 and as Executive Vice President and Chief Financial Officer of Israel Corp. from May 1997 to 2001. Mr. Hillman served as a director of several subsidiaries of Israel Corp., including Israel Chemicals Ltd., ZIM Israel Navigation Company and others. Prior to that time, Mr. Hillman was Vice President and Controller of Clal Industries Ltd. and a director of several companies in the Clal Group.

Dr. Eli Harari joined our Board in January 2001. Dr. Harari serves on the Stock Option and Compensation Committee. Dr. Harari, the founder of SanDisk Corporation, has served as President and Chief Executive Officer and as a director of SanDisk since 1988. In 1983, Dr. Harari founded Wafer Scale Integration, or WSI, a semiconductor company acquired by ST Microlectronics in 2000, serving as WSI's President and Chief Executive Officer from 1983 to 1986 and as Chairman and Chief Technical Officer from 1986 to 1988.

Miin Wu joined our Board in January 2001. Mr. Wu serves as President and Chief Executive Officer of Macronix International and has been an executive officer of Macronix since its formation in 1989. Mr. Wu received both a B.S. and an M.S. in Electrical Engineering from National Cheng-Kung University in Taiwan as well as an M.S. in Material Science & Engineering from Stanford University.

N. Damodary Reddy joined our Board in January 2001. Mr. Reddy serves on the Audit Committee. Mr. Reddy is the co-founder of Alliance Semiconductor Corporation and has served as its Chairman, President and Chief Executive Officer since its inception in February 1985. Mr. Reddy also served as Chief Financial Officer of Alliance Semiconductor from June 1998 to January 1999 and from May 2001 until April 2002. From September 1983 to February 1985, Mr. Reddy served as President and Chief Executive Officer of Modular Semiconductor, Inc., and from 1980 to 1983, he served as manager of Advanced CMOS Technology Development at Synertek, Inc., a subsidiary of Honeywell, Inc. Prior to that time, Mr. Reddy held various research and development and management positions at Four

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Phase Systems, a subsidiary of Motorola, Inc., Fairchild Semiconductor and RCA Technology Center. He holds an MS degree in Electrical Engineering from North Dakota State University and an MBA from Santa Clara University.

Hans Rohrer joined our Board in April 2002 as an independent director. Mr. Rohrer serves as a member of our Audit Committee. From 1999 to 2002, Mr. Rohrer served as President of Taiwan Semiconductor Manufacturing Company — Europe. Mr. Rohrer has held various engineering, marketing, sales and general management positions, including Vice President and General Manager, Europe, with National Semiconductor between 1980 and 1998. Mr. Rohrer started his career in the semiconductor industry with Texas Instruments. Mr. Rohrer serves as an independent director on our Board for a fixed term which expires in 2005 and can be extended for an additional 3 years fixed term.

Zehava Simon joined our Board in September 1999. Ms. Simon serves as Chairperson of our Audit Committee and serves as a member of our Stock Option and Compensation Committee and Tender Committee. Since 2002, Ms. Simon has served as Chief Executive Officer for BMC Software Israel prior to serving in various positions at BMC from 2000 to 2002. From 1998 to 2000, Ms. Simon was the Israel Business Development Manager for Intel. From 1993 to 1998, Ms. Simon served as Intel's Finance and Administration Manager for Israel. Ms. Simon serves as an independent director on our Board for a fixed term which expires in 2004.

## Compensation

For 2002 and the nine months ended September 30, 2003, we paid to all our directors and senior management as a group an aggregate of \$1.4 million and \$0.6 million, respectively, in salaries, fees and bonuses, excluding management fees paid to a subsidiary of TIC (see "Certain Transactions"). The total amount set aside or accrued in the nine months ended September 30, 2003 to provide for severance, retirement and similar benefits for such persons was \$0.1 million. No directors received cash compensation other than the annual and meeting fees described below. Mr. Vernia receives annual compensation at a total cost to us of approximately \$225,000, including customary benefits provided to our officers. As of September 30, 2003, our directors were granted options to purchase an aggregate of 280,000 ordinary shares at a weighted average exercise price of \$8.48. These options will become exercisable according to various vesting schedules over four years and generally remain exercisable for five years following the vesting date.

During the nine months ended September 30, 2003, we granted a total of 366,000 options to purchase ordinary shares to our senior managers as a group. These options have a weighted average exercise price of \$3.98 per share with vesting periods over four years and expire in 2013. For options granted to the Chairman of our Board of Directors and Chief Executive Officer, see "Certain Transactions — Grant of Options to Chairman and Chief Executive Officer."

Since October 2001, the directors have foregone their directors' fees, except for fees required by law to be paid to our independent directors, consisting of NIS 26,000 (approximately \$5,840) annual fee plus NIS 915 (approximately \$205) per meeting. The aggregate amount payable to our independent directors with respect to the nine months ended September 30, 2003 was approximately \$12,000. The annual and per meeting fees paid to our independent directors are adjusted semiannually to reflect changes to the published guidelines in Israel for independent directors.

# **Share Option Plans**

General. We currently maintain 15 share option plans. As of September 30, 2003, there were 6,777,520 options outstanding to acquire our ordinary shares pursuant to our share option plans at a weighted average exercise price of \$7.90, exercisable at various dates through September 2013. Options to be granted by us to our directors and employees will only be made pursuant to the 2001 Non-Employee Director Share Option Plan, the 2003/1 Employee Share Option Plan, the 2004 Employee Share Option Plan and the 2005 Employee Share Option Plan.

The purpose of the option plans is to afford an incentive to our officers, directors and employees or any of our subsidiaries, to acquire a proprietary interest in us, to continue as officers, directors, employees, to increase their efforts on behalf of us and to promote the success of our business.

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Administration of Our Share Option Plans. Our option plans are administered by the Board of Directors. Under the option plans, options to purchase our ordinary shares may be granted to our officers, directors, employees or consultants or our subsidiaries. Under the share option plans, the exercise price of options shall be determined by our Board of Directors, and generally ranges between 85% of market price and market price. The vesting schedule of the options is also determined by the Board of Directors but generally the options vest over a four-year period. Each option granted under the option plans is exercisable until 10 years from the date of the grant of the option plan.

2001 Non-Employee Director Share Option Plan

During 2001, the Audit Committee, Board of Directors and shareholders approved a share option plan pursuant to which our Board members will be granted options to purchase up to 400,000 ordinary shares. As of September 30, 2003, 280,000 options to purchase ordinary shares, of which 240,000 options were exercisable at an exercise price of \$8.88 per share, and 40,000 options were exercisable at an exercise price of \$6.08 per share, were outstanding under the plan. These options vest over a four-year period, according to various vesting schedules and are generally not exercisable following the fifth anniversary of their vesting date.

## 2003/1 Employee Share Option Plan

In 2003, we adopted the 2003/1 share option plan and reserved 1,737,420 ordinary shares for issuance to employees (excluding the options issued to our Chairman and Chief Executive Officer under this plan). As of September 30, 2003, options to purchase 1,608,850 ordinary shares were outstanding under the 2003/1 Share Option Plan. This plan also provides for the granting of incentive stock options to those employees qualifying under Section 422 of the Income Tax Code. Options under this share option plan vest in four yearly tranches, instead of three tranches over a period of four years, as in our prior option plans. The exercise prices of the options will generally be the closing sales price of our ordinary shares as reported by Nasdaq. The exercise prices of options granted under the 2003/1 share option plan range from \$4.42 to \$5.00.

# 2004 and 2005 Employee Share Option Plans

In December 2003, our shareholders are expected to approve three new option plans that will reserve 3.6% of the Company's outstanding share capital, as of November 1 of the year prior to the fiscal year covered by these option plans. The terms of these plans will be materially similar to the terms of the 2003/1 employee share option.

The table below provides information, as of September 30, 2003, concerning options authorized for issuance under our share option plans:

			Nullibel of
			ordinary
			shares remaining
			available for
			future
	Number of		grants under
	ordinary		share option
	shares to be		plans
	issued	Weighted-average	(excluding
	upon exercise of	exercise prices of	Options
	outstanding	outstanding	reflected in
Plan Category	options	options	column (a))
	(a)	(b)	(c)
Employee Share Option Plan	5,383,020	\$ 8.70	2,200,000(1)
Directors Share Option Plan	1,394,500	\$ 4.82	120,000
Total	6,777,520	\$ 7.90	2,320,000

<sup>(1)</sup>This number represents the number of options issuable under the 2003/1 and 2004 Employee Share Option Plans.

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Number of

#### **Board Practices**

Our Articles of Association provide that the Board of Directors shall consist of at least five and no more than 11 members. All directors hold office until their successors are elected at the next annual general meeting of shareholders. Pursuant to a shareholders agreement described in "Certain Transactions," Israel Corp., SanDisk, Alliance Semiconductor and Macronix have agreed to vote all their respective shares for nominees designated by each shareholder and for the election of a nominee of Israel Corp. as Chairman of the Board. Our officers are appointed by the Board of Directors and (subject, in certain cases, to employment agreement provisions that require 270 days notice of termination) continue to serve at the discretion of the Board of Directors.

Our Articles of Association provide that any director may, by written notice to us, appoint another person to serve as an alternate director, and may cancel such appointment. Any person, whether or not already a director, may act as an alternate, and the same person may act as the alternate for several directors. The term of appointment of an alternate director may be for one meeting of the Board of Directors or for a specified period or until notice is given of the cancellation of the appointment.

None of the members of the Board is entitled to receive any severance or similar benefits upon termination of his service with the Board of Directors, other than Mr. Vernia, who is entitled to severance as an employee under Israeli law.

Pursuant to Israeli law, we are required to appoint two independent directors. These directors must be unaffiliated with us and our principals. Any committee of the Board of Directors which is authorized to exercise any function of the board must include at least one independent director.

Independent directors are to be elected by a majority vote at a shareholders' meeting, provided that such majority includes at least one-third of the shares held by non-controlling shareholders voted at the meeting or the total number of shares held by non-controlling shareholders voted against the election of the director does not exceed one percent of the aggregate voting rights in the company.

The initial term of an independent director is three years and may be extended for an additional three years. Independent directors may be removed only by the same percentage of shareholders as is required for their election, or by a court, and then only if the independent directors cease to meet the statutory qualifications for their appointment or if they violate their duty of loyalty to the company.

An independent director is entitled to compensation, as provided in regulations adopted under the new Companies Law, and is otherwise prohibited from receiving any other compensation, directly or indirectly, in connection with service provided as an independent director.

The Companies Law requires public companies to appoint an audit committee. The responsibilities of the audit committee include identifying irregularities in the management of the company's business and approving related party transactions as required by law. An audit committee must consist of at least three directors, including the independent directors of the company. The chairman of the board of directors, any director employed by or otherwise providing services to the company, and a controlling shareholder or any relative of a controlling shareholder, may not be a member of the audit committee.

Under the Companies Law, the board of directors must appoint an internal auditor, who is recommended by the audit committee. The role of the internal auditor is to examine, among other matters, whether the company's actions comply with the law and orderly business procedure. Under the new Companies Law, the internal auditor may be an employee

of the company but not an office holder, or an affiliate, or a relative of an office holder or affiliate, and he may not be the company's independent accountant or its representative.

Ms. Simon, who currently serves as an independent director, was appointed under a predecessor law to a fixed five-year term, which expires in September 2004. Mr. Rohrer, who currently serves as an independent director, was appointed under the current Companies Law, with an initial three-year term expiring in April 2005. Both Ms. Simon and Mr. Rohrer serve on our Audit Committee, and Ms. Simon is deemed to be a financial expert as required under the Sarbanes-Oxley Act.

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Mr. Ofer, Dr. Harari and Ms. Simon serve on the Stock Option and Compensation Committee. The committee meets at least once a year. The primary function of our Stock Option and Compensation Committee is to approve our employee compensation policy and determine remuneration and other terms of employment for our officers and senior employee. In setting our remuneration policy, the committee considers a number of factors including:

- the overall employment market environment;
- the basic salaries and benefits available to comparable officers at comparable companies;
  - the need to attract and retain officers of an appropriate caliber;

the need to ensure such executives' commitment to the continued success of our company by means of incentive schemes:

• the performance of the employee; and financial and operating results of our company.

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## **Principal Shareholders**

The following table sets forth certain information regarding beneficial ownership of our ordinary shares as of November 13, 2003 by:

each person who is known by us to own beneficially more than five percent of our outstanding ordinary shares; and

• all of our current officers and directors as a group.

The table has been prepared on a pro forma basis assuming the exercise of all options that, by their terms, are exercisable within 60 days of November 13, 2003; shares subject to these options are deemed outstanding for the purpose of computing the ownership percentage of the person holding these options, but are not deemed outstanding for purposes of computing the ownership percentage of any other person.

As used in this table, "beneficial ownership" means the sole or shared power to vote or direct the voting or to dispose or direct the disposition of any ordinary shares. The address of each of our officers and directors is c/o Tower Semiconductor Ltd., Ramat Gavriel Industrial Park, Post Office Box 619, Migdal Haemek, 23105 Israel, our principal place of business.

	Shares	Percentage of	
	Beneficially	<b>Ordinary Shares</b>	
	Owned	Beneficially Owned	
		Before	After
Beneficial Owner	Number(1)	Offering	Offering(2)
Israel Corporation Technologies (ICTech) Ltd. (3)	15,110,492(4)	29.88%	24.15%
SanDisk Corporation (3)	9,253,697(5)	18.33	14.81
Alliance Semiconductor Corporation (3)	9,217,273(6)	18.25	14.75
Macronix International Co. Ltd. (3)	9,021,531(7)	17.89	14.45
Ontario Teachers' Pension Plan Board ("OTPP") (3)	4,350,000(8)	8.68	7.00
All officers and directors as a group (14 persons)	444,485	*	*

## \*Less than one percent

- (1) Percentage of ownership is based on 48,779,146 ordinary shares outstanding as of November 12, 2003. Assumes the holder's beneficial ownership of all Ordinary Shares that the holder has a right to purchase within 60 days.
  - (2) Percentage of ownership is based on the number of shares described in footnote 1 and the sale of 12,000,000 shares offered by us in this offering.
- (3) Pursuant to a shareholders agreement among Israel Corp., Alliance Semiconductor Corporation, SanDisk Corporation and Macronix Co. Ltd., each of ICTech, Alliance Semiconductor Corporation, SanDisk Corporation and Macronix Co. Ltd. may be said to have shared voting and dispositive control over 76.55% of the outstanding shares in us.
- (4) Based on information provided by ICTech, represents 13,323,436 shares currently owned by ICTech, 518,020 shares issuable in connection with the unpaid portion of the initial installment of the Fifth Milestone Payment and 386,474 shares issuable in connection with the second installment of the Fifth Milestone Payment, assuming a purchase price of \$7.59 per share, and 823,656 shares issuable upon the exercise of currently exercisable warrants.
- (5) Based on information provided by SanDisk, represents 7,536,343 shares currently owned by SanDisk, 777,295 shares issuable in connection with the unpaid portion of the initial installment of the Fifth Milestone Payment and 579,747 shares issuable in connection with the second installment of the Fifth Milestone Payment assuming a purchase price of \$7.59 per share and 360,312 shares issuable upon the exercise of currently exercisable warrants.
- (6) Based upon information provided by Alliance Semiconductor, represents 7,502,484 shares currently owned by Alliance Semiconductor, 777,295 shares issuable in connection with the unpaid portion of the initial installment of the Fifth Milestone Payment and 579,747 shares issuable in connection with the second installment of the Fifth Milestone Payment assuming a purchase price of \$7.59 per share, and 357,747 shares issuable upon the exercise of currently exercisable warrants.
- (7) Based on information provided by Macronix, represents 7,367,489 shares currently owned by Macronix, 777,295 shares issuable in connection with the unpaid portion of the initial installment of the Fifth Milestone Payment and 579,747 shares issuable in connection with the second installment of the Fifth Milestone Payment, assuming a purchase price of \$7.59 per share, and 297,000 shares issuable upon the exercise of currently exercisable warrants.
- (8) Based on information provided by OTPP, represents 3,000,000 shares currently owned by OTPP and 1,350,000 shares issuable upon the exercise of currently exercisable warrants.

Share Transfer Restrictions. Pursuant to a shareholders agreement dated January 18, 2001, as amended, by and among, ICTech, SanDisk, Alliance Semiconductor and Macronix, each of the parties to this shareholders agreement has agreed to restrictions through January 29, 2006 on the transfer of all of our ordinary shares held by them in connection with their investments in Fab 2, subject to the right to sell up to 30% of the number of our ordinary shares held by each respective party beginning on January 29, 2004 through January 29, 2006, during this two-year period. These restrictions are thereafter gradually lifted through January 29, 2008.

Our Fab 2 credit facility also limits the number of ordinary shares which SanDisk, Alliance, Macronix and ICTech may sell while loans under our credit facility are outstanding. The following events are each considered to be a change of our ownership (as such term is defined in the credit facility), any of which would constitute an event of default under the facility agreement:

# With respect to ICTech:

From the closing of the amendment in November 2003 through January 29, 2006, ICTech does not hold at least the higher of (i) eight million of our ordinary shares or (ii) 16.5% of our issued share capital less two million ordinary shares;

• From the four-year period beginning January 29, 2006 to January 29, 2010, ICTech may gradually sell between 25% to 100% of the shares held by it at the closing of the amendment in November 2003 less the amount of shares it was entitled to sell through January 29, 2006.

With respect to the wafer partners:

At any time during the period between January 30, 2006, and at least 12 months from January 29, 2006, the aggregate shareholdings of SanDisk, Alliance Semiconductor and Macronix is reduced in excess of 40% of the amount of such aggregate shareholdings on January 29, 2006 (in the event certain conditions are met greater reductions in shareholdings are permitted) less the sale of 30% of the number of the ordinary shares held by them on January 29, 2004.

As of November 7, 2003, there were a total of 34 holders of record of our ordinary shares, of which 24 were registered with addresses in the United States. Such United States holders were, as of such date, the holders of record of approximately 33% of the outstanding ordinary shares.

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#### Certain Transactions

It is our policy to enter into transactions with related parties on terms that, on the whole, are no less favorable than those that would be available from unaffiliated parties. Based on our experience in the business areas in which we operate and the terms of our transactions with unaffiliated third parties, we believe that all of the transactions described below met our policy standards at the time they occurred.

Wafer Partner Agreements. During 2000, we entered into a series of agreements with four wafer partners: SanDisk, Alliance Semiconductor, Macronix and QuickLogic. The wafer partners agreed to invest \$250 million in us; SanDisk,

Alliance Semiconductor and Macronix each committed to invest \$75 million, and QuickLogic committed to invest \$25 million in exchange for our ordinary shares and credits towards the purchase of wafers from Fab 2 under the terms set forth in the agreements. We also agreed to reserve approximately 50% of our Fab 2 capacity for our wafer partners for a 10-year period. In addition, these agreements contain special pricing terms for wafer purchases made by the wafer partners on up to 80% of the Fab 2 wafer fabrication capacity committed to the wafer partners, subject to minimum holdings of our ordinary shares.

In April 2002, our shareholders approved amendments to our agreements with our wafer partners and financial investors relating to their third and fourth milestone payments, and in May 2003, our shareholders approved an amendment to our agreements with our wafer partners relating to their fifth milestone payments, which is expected to be approved by our shareholders in December 2003 (see — "Amendment to Fifth Milestone Payment Schedule").

To date, we have received an aggregate of \$226.6 million from our wafer partners, \$179.4 million of which has been applied to the purchase of 21,907,994 ordinary shares and \$47.2 million of which has been established as long-term customer advances that were to have been credited against purchases by the wafer partners at a rate of 7.5% through June 2005 with respect to customer advances issued in connection with \$17.9 million in credits, and thereafter all remaining credits are to be utilized at a rate of 15%. However, these credits may not be utilized during the three year period between January 1, 2004 and December 31, 2006.

Investment by Israel Corporation Technologies (ICTech) Ltd. and other Financial Investors. In December 2000, Israel Corporation Technologies (ICTech) Ltd., our current principal shareholder and one of Israel's major holding companies, agreed to invest \$50.0 million contemporaneous with the investments by the wafer partners. To date, we have received an aggregate of \$45.5 million from ICTech, which has been applied to the purchase of 5,812,601 of our ordinary shares. ICTech's final installment of \$4.5 million is to be made in connection with the amendment to the fifth milestone payment schedule described below.

In February 2001, the Challenge Fund-Etgar II agreed to invest \$5.0 million in our company on substantially the same terms as ICTech. To date, we have received an aggregate of \$4.5 million from Challenge, which has been applied to the purchase of 561,215 of our ordinary shares. The Challenge Fund's final installment of \$0.5 million is to be made in connection with the amendment to fifth milestone payment schedule described below.

Investment by Ontario Teachers' Pension Plan Board. In July 2002, Ontario Teachers' Pension Plan Board (OTPP), agreed to purchase from us for \$15.0 million, 3,000,000 ordinary shares and 1,350,000 warrants with an exercise price of \$7.50, exercisable for four years from the date of issuance. The investment of OTPP was conditioned upon our raising at least an additional \$15.0 million by October 31, 2002, which we satisfied through our sale of ordinary shares and warrants pursuant to a distribution of rights to our shareholders and certain employee option holders in September 2002. Pursuant to the share purchase agreement with OTPP, we filed in September 2003 a registration statement with the SEC to register the resale of the shares and warrants issued to OTPP, which was declared effective on September 30, 2003.

Amendment to Fifth Milestone Payment Schedule. In March 2003, we reached an agreement with all of our major investors to advance the fifth and final Fab 2 milestone payment in two installments. A portion of the first installment amounting to \$15.9 million has already been invested by the Fab 2 investors, and they were issued ordinary shares at a purchase price of \$2.983 per share. SanDisk,

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Alliance Semiconductor, Macronix and ICTech will invest their remaining \$24.6 milion due in connection with the fifth milestone payment within 3 days of the date we receive Shareholder approval for this amendment. Challenge may enter into this amendment as well. The parties to this amendment will be issued ordinary shares with respect to the remainder of the first installment (\$8.7 million) at the purchase price per share agreed to in the first quarter of 2003 (\$2.983 per share) and, with respect to the second installment (\$16.4 million), at the offering price to the public in this offering. In addition, they undertook to perform all actions necessary to bring about the rights offering and/or the rescue offer, which may be initiated by our banks (see "Material Agreements — Credit Facility").

The investors who are wafer partners further agreed that they may not utilize any of their credits, which amount to \$46.9 million as of September 30, 2003, for the purchase of our wafer products from the final approval of this amendment until December 31, 2006. During this period, each wafer partner shall be entitled, every quarter, to convert into our ordinary shares of those wafer credits that could have been utilized by such wafer partner against the actual payment of wafers manufactured at Fab 2 during such quarter; otherwise, these credits will bear interest payable every quarter at three-month LIBOR plus 2.5% through December 31, 2007. On December 31, 2007, the remaining wafer credits that were not converted into shares will be paid to all of the wafer partners who are parties to this amendment. Should the wafer partners elect to convert their wafer credits into our ordinary shares, they will be issued ordinary shares at the average trading price of our ordinary shares during the 15 consecutive trading days preceding the last relevant quarter. We have also agreed to allow our wafer partners to convert, during January 2006, their remaining wafer credits issued in connection with their fourth milestone payment up to an aggregate of \$13.2 million, which they may have as of December 31, 2005, into our ordinary shares, at the average trading price of our ordinary shares during the 15 consecutive trading days preceding December 31, 2005. If the wafer partners exercise this right and are issued more than 5%, in the aggregate, of our shares on January 31, 2006, we have agreed to offer all of our other shareholders rights to purchase our shares at the same price per share.

Our ordinary shares to be issued with respect to the fifth milestone payment will be subject to (i) the restrictions on transfer applicable to the investors' other holdings of our ordinary shares in connection with their committed investments, and (ii) registration rights. The transfer restrictions applicable to each of the investors' holdings in our ordinary shares in connection with its committed investments shall be extended by two years to January 2006 with respect to ordinary shares that represent 70% of its holdings in our ordinary shares in connection with (a) its committed investments which are held in January 2004, (b) our September 2002 rights offering, and (c) ordinary shares issued upon the conversion of its wafer credits as described above.

Expense Reimbursement Agreement with Israel Corp. In March 2002, we entered into an agreement with Israel Corp., the parent company of Israel Corporation Technologies (ICTech), pursuant to which, Mr. Ehud Hillman, a director of our company, provides management services in consideration of an annual fee of \$240,000. The term of this agreement is for one year, with automatic renewal for successive one-year periods thereafter, unless prior terminated by one of the parties. Our Audit Committee, Board of Directors and shareholders approved this agreement.

Grant of Options to Ehud Hillman. In November 2000 and September 2001, we granted to Mr. Hillman, options to purchase up to 50,000 and 21,500 ordinary shares, respectively, at an exercise price of \$20.00 and \$10.75 per share, respectively. These options vest over a three year period, subject to Mr. Hillman's rendering of services as requested by our Board of Directors. All options granted will remain exercisable for a period of three years from the date of vesting.

Grant of Options to Chairman and Chief Executive Officer. In May 2003, our shareholders approved the grant of options to Mr. Carmel Vernia, the Chairman of our Board of Directors and Chief Executive Officer to purchase up to 1,043,000 ordinary shares of the Company at an exercise price of \$2.983. The options vest over five years, with 417,200 options (40%) vesting on May 31, 2005 and an additional 208,600 options (20%) vesting on May 31st of each of 2006, 2007 and 2008. The vesting of the options is subject to Mr. Vernia's serving as the Chairman of our Board of Directors, Chief Executive Officer or President on the relevant vesting date. Other than as set forth below, the options will be exercisable for a period of 5 years from the date on which the options vest.

Grant of Options to Directors. During 2001, the Audit Committee, Board of Directors and shareholders approved a stock option plan pursuant to which our Board members will be granted options to purchase up to 400,000 ordinary shares. As of September 30, 2003, 280,000 options to purchase ordinary shares, of which 240,000 options were exercisable at an exercise price of \$8.88 per share, and 40,000 options were exercisable at an exercise price of \$6.08 per share, were outstanding under the plan. These options vest over a four-year period, according to various vesting schedules and are generally not exercisable following the fifth anniversary of their vesting date.

Indemnification Agreements with Directors. In December 2001, we entered into indemnification agreements with the members of our Board of Directors, pursuant to which, subject to the limitations set forth in the Israel Companies Law and our Articles of Association, they will be exempt from liability for breaches of the duty of care owed by them to the Company or indemnified for certain costs, expenses and liabilities with respect to events specified in the exemption and indemnification agreements. Such indemnification will be limited to up to 25% of the then current fully paid-in-equity of the Company (in addition to any amounts paid under insurance), with respect to specified events, in each case of indemnification (including all matters connected therewith). The agreements were approved by our shareholders at the general meeting of the shareholders in November 2001 after approval of our Audit Committee and our Board of Directors. In May 2003, our shareholders approved the execution of an exemption and indemnification agreement with Mr. Vernia, under the same terms as the above agreements.

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# Description of Capital Stock

Our authorized share capital consists of 100,000,000 ordinary shares, par value NIS 1.00 per share. We have requested that our shareholders approve an increase in our authorized share capital at their upcoming meeting in December 2003 to a total of 150,000,000 ordinary shares, par value NIS 1.00 per share. Under our articles of incorporation, the ordinary shares do not have preemptive rights. We may from time to time, by approval of a majority of our shareholders, increase our authorized share capital. All ordinary shares are registered shares, rather than bearer shares.

The ownership or voting of our ordinary shares by non-residents of Israel is not restricted in any way by our memorandum of association or articles of association. The State of Israel does not restrict in any way the ownership or voting of ordinary shares by non-residents of Israel, except with respect to subjects of countries that are in a state of war with Israel. Our ordinary shares do not have cumulative voting rights for the election of directors. The affirmative vote of the shareholders present in person or by proxy that represent more than 50% of the voting power present in person or by proxy have the power to elect all nominees up for election to our board of directors.

In the event of our liquidation, after satisfaction of liabilities to creditors, our assets will be distributed to the holders of our ordinary shares in proportion to the nominal value of their respective holdings. This liquidation right may be affected by the grant of a preferential dividend or distribution right to the holder of a class of shares with preferential rights that may be authorized in the future. Dividends may be paid only out of profits, as defined in the Companies Law. Our Board of Directors is authorized to declare dividends, although our bank covenants currently in effect

prohibit the payment of dividends on our ordinary shares, unless such payments are approved by the banks.

Holders of ordinary shares have one vote for each ordinary share held on all matters submitted to a vote of shareholders. Subject to the provisions set forth in Section 46B of the Securities Law, these voting rights may be affected by the grant of any special voting rights to the holders of a class of shares with preferential rights that may be authorized in the future. Our major shareholders do not have different voting rights from each other or other shareholders.

Resolutions of shareholders (e.g. resolutions amending our articles of association, electing or removing directors, appointing auditors, authorizing changes in capitalization or the rights attached to our shares or approving a wind-up or merger) require the affirmative vote (at a meeting convened upon advance notice of twenty one days) of shareholders present in person or by proxy and holding shares conferring, in the aggregate, at least a majority of the votes actually cast on such resolutions.

The quorum required for a meeting of shareholders is at least two shareholders present, in person or by proxy, within half an hour of the time fixed for the meeting's commencement that together hold shares conferring in the aggregate more than 33% of the total voting power of our shares. A meeting adjourned for lack of a quorum is adjourned to the same day in the following week at the same time and place. At the reconvened meeting, in the event a quorum is not present within half an hour of the time fixed for the meetings commencement, the persons present shall constitute a quorum.

Our registration number at the Israeli registrar of companies is 52-004199-7. The objective stated in our articles of association is to engage in any lawful activity.

Modification or abrogation of the rights of any existing class of shares requires either the written consent of all of the holders of the issued shares of such class or the adoption of a resolution by an ordinary majority of a general meeting of holders of such class. The quorum required for a class meeting is at least two shareholders present, in person or by proxy, within half an hour of the time fixed for the meetings commencement that together hold shares conferring in the aggregate at least 33% of the total voting power of the issued shares of such class. If no quorum is present, the meeting shall be adjourned to another time and at the adjourned meeting a quorum shall be constituted in the presence of any number of participants, regardless of the number of shares held by them.

As of October 31, 2003, 48,779,146 of our ordinary shares were outstanding. The above number of outstanding ordinary shares does not include 1,300,000 treasury shares held by us in an account with Bear Stearns & Co.

The transfer agent and registrar for our ordinary shares is American Stock Transfer & Trust Company, 59 Maiden Lane, New York, New York 10007.

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# **Taxation and Government Programs**

The following is a summary of the material current tax structure applicable to companies in Israel, with special reference to its effect on us. The following also contains a discussion of the material Israeli and United States tax consequences to persons purchasing our ordinary shares offered by this prospectus and of Israeli government programs benefiting us. To the extent that the discussion is based on new tax legislation that has not been subject to judicial or administrative interpretation, we cannot assure you that the tax authorities will accept the views expressed

in the discussion in question. The discussion is not intended, and should not be taken, as legal or professional tax advice and is not exhaustive of all possible tax considerations.

WE RECOMMEND THAT PROSPECTIVE PURCHASERS OF OUR ORDINARY SHARES CONSULT THEIR OWN TAX ADVISORS CONCERNING THE UNITED STATES, ISRAELI OR OTHER TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF ORDINARY SHARES, INCLUDING, IN PARTICULAR, THE EFFECT OF ANY FOREIGN, STATE OR LOCAL TAXES.

### General Corporate Tax Structure

In general, Israeli companies are currently subject to Company Tax at the rate of 36% of taxable income. However, the effective tax rate payable by a company, which derives income from an Approved Enterprise (as further discussed below), may be considerably lower.

Law for the Encouragement of Capital Investments, 1959

Certain of our facilities, including Fab 2, have been granted "Approved Enterprise" status under the Law for the Encouragement of Capital Investments, 1959, as amended (the "Investment Law"). The Investment Law provides that a capital investment in eligible facilities may, upon application to the Israel Investment Center, be designated as an Approved Enterprise. Each certificate of approval for an Approved Enterprise relates to a specific investment program delineated both by its financial scope, including its capital sources and its physical characteristics, e.g., the equipment to be purchased and utilized pursuant to the program. The tax benefits derived from any such certificate of approval relate only to taxable income attributable to the specific Approved Enterprise.

Taxable income of a company derived from an Approved Enterprise is subject to Company Tax at the rate of 25% (rather than 36% as stated above) for the "Benefit Period": a period of seven years commencing with the year in which the Approved Enterprise first generated taxable income (limited to twelve years from commencement of production or fourteen years from the date of approval, whichever is earlier) and, under certain circumstances (as further detailed below and applicable to us), extending to a maximum of ten years from the commencement year. Notwithstanding the foregoing, taxable income of a company located in certain geographic locations, derived from an Approved Enterprise approved after January 1, 1997, which is not distributed to its shareholders, is tax exempt for the first two years of the Benefit Period and is taxed at a rate of 25% for the remainder of the Benefit Period. In the event that a company is operating under more than one approval or that only part of its capital investments are approved (a "Mixed Enterprise"), its effective Company Tax rate is the result of a weighted combination of the various applicable rates.

A company, which qualifies as a "Foreign Investors' Company," is entitled to further reductions in the tax rate normally applicable to Approved Enterprises. Such benefits will be granted only to enterprises seeking approval not later than December 31, 2002. Subject to certain conditions, a "Foreign Investors' Company" is a company which has more than 25% of its combined shareholders' investment in share capital (in terms of rights to profits, voting and the appointment of directors) and in long term shareholders' loans made by persons who are not residents of Israel. The percentage owned by nonresidents of Israel for any tax year will be determined by the lowest percentage of any of the above rights held by nonresidents during that year. Such a company will pay Company Tax at reduced rates for an extended ten-year (rather than the otherwise applicable seven-year) period and is exempt from any other tax on the undistributed income from its Approved Enterprise.

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For a company with foreign investment of:

	Company
	Tax Rate
Over 25% but less than 49%	25%
49% or more but less than 74%	20%
74% or more but less than 90%	15%
90% or more	10%

Should our foreign shareholdings exceed 25%, future Approved Enterprises would qualify for reduced tax rates for an additional three years, after the seven years mentioned above. However, there can be no assurance that we will attain approval for additional Approved Enterprises or that the provisions of this Law will not change or that the above-mentioned shareholding proportion will be reached for each subsequent year.

The Investment Law also provides that an Approved Enterprise is entitled to accelerated depreciation on its property and equipment that are included in an approved investment program. The tax incentives received by or to be received by the company in accordance with the Investment Law remain subject to final ratification by the Israel Investment Center and final determination by the Israel Tax Authority, such ratification and determination being conditional upon fulfillment of all terms of the approved program.

As mentioned above, our facilities have been granted "Approved Enterprise" status. However, there can be no assurance that we will attain approval for additional Approved Enterprises, that the provisions of this Law will not change or that the above-mentioned shareholding proportion will be reached and/or maintained.

Law for the Encouragement of Industry (Taxes), 1969

According to the Law for the Encouragement of Industry (Taxes), 1969, generally referred to as the Industry Encouragement Law, an industrial company is a company resident in Israel, at least 90% of the income of which, in a given tax year, exclusive of income from specified government loans, capital gains, interest and dividends, is derived from an industrial enterprise owned by it. An industrial enterprise is defined as an enterprise whose major activity in a given tax year is industrial production activity.

Under the Industry Encouragement Law, industrial companies are entitled to the following preferred corporate tax benefits:

- deduction of purchases of know-how and patents over an eight-year period for tax purposes;
- deduction of specified expenses incurred for a public issuance of securities in Israel over a three-year period for tax purposes;
- •right to elect, under specified conditions, to file a consolidated tax return with additional related Israeli industrial companies; and
  - accelerated depreciation rates on equipment and buildings.

Eligibility for benefits under the Industry Encouragement Law is not subject to receipt of prior approval from any governmental authority.

We believe that we currently qualify as an industrial company within the definition of the Industry Encouragement Law. We cannot assure you that we will continue to qualify as an industrial company or that the benefits described above will be available to us in the future.

Net Operating Loss Carryforward and Final Tax Assessments

As of September 30, 2003, we had net operating loss carryforwards for tax purposes of approximately \$200 million, which may be carried forward for an unlimited period of time. We have final tax assessments through the year 1998.

### Israeli Capital Gains Tax

Until the end of the year 2002, and provided we maintained our status as an industrial corporation, capital gains from the sale of our securities were generally exempt from Israeli Capital Gains Tax.

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This exemption did not apply to a shareholder whose taxable income is determined pursuant to the Israeli Income Tax Law (Inflationary Adjustments), 1985, or to a person whose gains from selling or otherwise disposing of our securities are deemed to be business income.

As a result of the recent tax reform legislation in Israel, gains from the sale of our ordinary shares derived from January 1, 2003 and on will, in general, be liable to capital gains tax of up to 15%. This will be the case so long as our securities remain listed for trading on the Tel Aviv Stock Exchange or Nasdaq. However, according to the tax reform legislation, non-residents of Israel will be exempt from any capital gains tax from the sale of our securities, so long as the gains are not derived through a permanent establishment that the non-resident maintains in Israel, and so long as our securities remain listed for trading as described above. These provisions dealing with capital gains are not applicable to a person whose gains from selling or otherwise disposing of our securities are deemed to be business income or whose taxable income is determined pursuant to the Israeli Income Tax Law (Inflation Adjustments), 1985; the latter law would not normally be applicable to non-resident shareholders who have no business activity in Israel.

In any event, under the U.S.-Israel Tax Treaty, a U.S. treaty resident may in general only be liable to Israeli capital gains tax on the sale of our ordinary shares (subject to the provisions of Israeli domestic law as described above) if that U.S. treaty resident holds 10% or more of the voting power in our company.

### Israeli Tax on Dividend Income

Israeli tax at a rate of 25% is generally withheld at source from dividends paid to Israeli individuals and non-residents; in general, no withholding tax is imposed on dividends paid to Israeli companies (subject to the provision of the Israeli Income Tax Ordinance). The applicable rate for dividends paid out of the profits of an Approved Enterprise is 15%. These rates are subject to the provisions of any applicable tax treaty.

Under the U.S.-Israel Tax Treaty, Israeli withholding tax on dividends paid to a U.S. treaty resident may not in general exceed 25%, or 15% in the case of dividends paid out of the profits of an Approved Enterprise. Where the recipient is a U.S. corporation owning 10% or more of the voting stock of the paying corporation and the dividend is not paid from the profits of an Approved Enterprise, the Israeli tax withheld may not exceed 12.5% subject to certain conditions.

# Material United States Federal Income Tax Considerations

Subject to the limitations described in the next paragraph, the following describes certain material United States federal income tax consequences to a holder of our ordinary shares who purchases their shares in this offering and qualifies as a "U.S. Holder," that is to say, who is for United States federal income tax purposes:

- a citizen or individual resident of the United States;
- a corporation created or organized under the laws of the United States, the District of Columbia, or any state;
- an estate the income of which is includable in gross income for United States federal income tax purposes regardless of its source; or
- a trust, if a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust or if the trust has validly elected to be treated as a U.S. person under applicable Treasury regulations.

This discussion is based on current provisions of the Internal Revenue Code of 1986, as amended, current and proposed Treasury regulations promulgated thereunder, and administrative and judicial decisions as of the date hereof, all of which are subject to change, possibly on a retroactive basis. This discussion does not address all aspects of United States federal income taxation that may be relevant to any particular shareholder based upon such shareholder's individual circumstances. In particular,

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this discussion considers only U.S. Holders that will own ordinary shares as capital assets and does not address the potential application of the alternative minimum tax or the United States federal income tax consequences to U.S. Holders that are subject to special treatment, including U.S. Holders that:

- are broker-dealers or insurance companies;
- have elected mark-to-market accounting;
- are financial institutions or "financial services entities";

hold our ordinary shares as part of a "straddle," "hedge" or "conversion transaction" with other investments;

- own directly, indirectly or by attribution at least 10% of our voting power; or
  - have a functional currency that is not the U.S. dollar.

In addition, this discussion does not address any aspect of state, local or non-U.S. tax laws.

Additionally, the discussion does not consider the tax treatment of partnerships or persons who hold ordinary shares through a partnership or other pass-through entity or the possible application of United States federal gift or estate taxes.

Each prospective investor is advised to consult his or her own tax advisor with respect to the specific tax consequences of purchasing, holding or disposing of our ordinary shares.

Taxation of the Disposition of Ordinary Shares

Subject to the discussion of the passive foreign investment company rules below, upon the sale, exchange or other disposition of our ordinary shares, a U.S. Holder will recognize capital gain or loss in an amount equal to the difference between the U.S. Holder's basis in the ordinary shares, which is usually the U.S. Holder's cost of these shares, and the amount realized on the disposition. Capital gain from the sale, exchange or other disposition of ordinary shares held more than one year will be long-term capital gain. In the case of a U.S. Holder that is an individual, estate or trust, long-term capital gains are taxed at a maximum rate of 15% under current law. Under current law, after December 31, 2008, however, this maximum rate will be 20%. Gain or loss recognized by a U.S. Holder on a sale, exchange or other disposition of ordinary shares generally will be treated as U.S. source income or

loss for U.S. foreign tax credit purposes. The U.S. foreign tax credit rules are complex and subject to limitations. U.S. Holders should consult their own tax advisors with respect to the amount of foreign taxes that may be claimed as a credit. The deductibility of capital losses is subject to limitations.

Tax Consequences if We are a Passive Foreign Investment Company

We will be a passive foreign investment company, or PFIC, if 75% or more of our gross income in a taxable year, including our pro rata share of the gross income of any company, U.S. or foreign, in which we are considered to own, directly or indirectly, 25% or more of the shares by value, is passive income. Alternatively, we will be considered to be a PFIC if at least 50% of our assets in a taxable year, averaged over the year and ordinarily determined based on fair market value and including our pro rata share of the assets of any company in which we are considered to own, directly or indirectly, 25% or more of the shares by value, are held for the production of, or produce, passive income. Passive income includes amounts derived by reason of the temporary investment of funds raised in our public offering. If we were to be a PFIC, and a U.S. Holder does not make an election to treat us as a "qualified electing fund" (described below) or a "mark to market" election (described below):

Excess distributions by us to a U.S. Holder would be taxed in a special way. "Excess distributions" are amounts received by a U.S. Holder with respect to our stock in any taxable year that exceed 125% of the average distributions received by a U.S. Holder from us in the shorter of either the three previous years or the U.S. Holder's holding period for ordinary shares before the present taxable year. This amount may exceed our current or accumulated earnings and profits. Excess distributions must be allocated ratably to each day that a U.S. Holder has held our shares. A U.S. Holder must include amounts allocated to the current taxable year in its gross

income as ordinary income for that year. A U.S. Holder must pay tax on amounts allocated to each prior taxable year (other than any year prior to the first year in which we were a PFIC) at the highest rate in effect for that year on ordinary income and the tax is subject to an interest charge at the rate applicable to deficiencies for income tax.

The entire amount of gain that realized by a U.S. Holder upon the sale or other disposition of ordinary shares will also be treated as an excess distribution and will be subject to tax as described above.

A U.S. Holder's tax basis in shares of our stock that were acquired from a decedent who was a U.S. Holder would not receive a step-up to fair market value as of the date of the decedent's death but would instead be equal to the decedent's basis, if lower.

If we were a PFIC, and any foreign subsidiary or other foreign company in which we own shares were also a PFIC, then a U.S. Holder of our shares would also be treated as owning shares of the "lower-tier PFIC." For purposes of the above-described rules relating to dispositions of PFIC shares, certain proposed regulations generally would treat any transaction that reduces a U.S. Holder's proportionate interest in a lower-tier PFIC as a disposition of shares of such lower-tier PFIC.

The special PFIC rules described above will not apply to a U.S. Holder if the U.S. Holder makes an election to treat us as a "qualified electing fund", or QEF, in the first taxable year in which the U.S. Holder owns (or is considered to own) ordinary shares and if we comply with applicable reporting requirements; a late (retroactive) election may be made in certain limited circumstances. Instead, a shareholder of a qualified electing fund is required for each taxable year to include in income a pro rata share of the ordinary earnings of the qualified electing fund as ordinary income and a pro rata share of the net capital gain of the qualified electing fund as long-term capital gain, subject to a separate election to defer payment of taxes, which deferral is subject to an interest charge. We have agreed to supply U.S.

Holders with the information needed to report income and gain pursuant to a QEF election in the event we are classified as PFIC. The QEF election is made on a shareholder-by- shareholder basis and can be revoked only with the consent of the Internal Revenue Service, or IRS. A shareholder makes a QEF election by attaching a completed IRS Form 8621, including the "PFIC annual information statement," to a timely filed United States federal income tax return and by filing this form with the IRS Service Center in Philadelphia, Pennsylvania. Even if a QEF election is not made, a shareholder in a PFIC who is a U.S. person must file a completed IRS Form 8621 every year.

A U.S. Holder of ordinary shares may avoid application of the PFIC rules to shares of a lower-tier PFIC by making a separate QEF election for shares of the lower-tier PFIC for the first taxable year in which the U.S. Holder is considered to own shares of the lower-tier PFIC; this election may only be made, however, if the lower-tier PFIC agrees to comply with certain reporting requirements. A QEF election with respect to our shares does not constitute an election with respect to any lower-tier PFIC.

A U.S. Holder of PFIC stock which is publicly traded may elect to mark the stock to market annually, recognizing as ordinary income or loss each year an amount equal to the difference as of the close of the taxable year between the fair market value of the PFIC stock and the U.S. Holder's adjusted tax basis in the PFIC stock. Losses would be allowed only to the extent of net mark-to-market gain previously included by the U.S. Holder under the election for prior taxable years. If the mark-to-market election were made, then the rules set forth above would not apply for periods covered by the election.

We do not believe that we currently are a PFIC. We have not obtained an opinion of counsel confirming this conclusion because it is unclear how the relevant regulations would apply in our circumstances. However, our belief that we are not a PFIC is supported by a private letter ruling issued by the IRS to a company whose circumstances are substantially the same as ours, although such private letter ruling would not be binding on the IRS in determining our status. In addition, the tests for determining PFIC status are applied annually and it is difficult to make accurate predictions of future income and assets, which are relevant to the determination of PFIC status. Accordingly, no assurance can be given that we are not a PFIC or that we will not become a PFIC in the future. If we

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determine that we have become a PFIC, we will notify our U.S. Holders and provide them with the information necessary to comply with the QEF rules. U.S. Holders who hold ordinary shares during a period when we are a PFIC will be subject to the foregoing rules, even if we cease to be a PFIC, subject to exceptions for U.S. Holders who made a timely QEF or mark-to-market election. U.S. Holders are urged to consult their tax advisors about the PFIC rules, including the consequences to them of making a mark-to-market or QEF election with respect to our ordinary shares in the event that we qualify as a PFIC.

Similarly, U.S. Holders of our shares would be subject to adverse tax consequences if we or any of our foreign corporate subsidiaries were classified as a foreign personal holding company. However, Tower does not believe that it or any of its subsidiaries currently is, or in the future is likely to be, so classified.

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#### Conditions in Israel

We are incorporated under the laws of, and our principal offices, manufacturing and research and development facilities are located in, the State of Israel. Accordingly, we are directly affected by economic, political and military conditions in Israel. Our operations would be materially adversely affected if major hostilities involving Israel arise or if trade between Israel and its present trading partners is curtailed.

#### **Political Conditions**

Since the establishment of the State of Israel in 1948, a number of armed conflicts have taken place between Israel and its Arab neighbors, and a state of hostility, varying from time to time in intensity and degree, has led to security and economic problems for Israel. Additionally, from time to time since December 1987, Israel has experienced civil unrest, primarily in the West Bank and Gaza Strip territories administered by Israel since 1967. Although Israel has entered into various agreements with Egypt, Jordan and the Palestinian Authority, there has been an increase in unrest and terrorist activity which began in September 2000 and which has continued with varying levels of severity into 2003. Parties with whom we do business have sometimes declined to travel to Israel during periods of heightened unrest or tension, forcing us to make alternative arrangements where necessary. In addition, the political and security situation in Israel may result in parties with whom we have contracts claiming that they are not obligated to perform their commitments under those agreements pursuant to force majeure provisions. We do not believe that the political and security situation has had any material impact on our business to date; however, we can give no assurance that security and political conditions will have no such effect in the future. Any hostilities involving Israel or the interruption or curtailment of trade between Israel and its present trading partners could adversely affect our operations and could make it more difficult for us to raise capital. Furthermore, our manufacturing facilities are located exclusively in Israel, which is currently experiencing civil unrest, terrorist activity and military action. Since we do not have a detailed disaster recovery plan that would allow us to quickly resume manufacturing, we could experience serious disruption of our business if acts associated with this conflict result in any serious damage to our manufacturing facility. Our business interruption insurance may not adequately compensate us for losses that may occur and any losses or damages incurred by us could have a material adverse effect on our business.

Some countries, companies and organizations continue to participate in a boycott of Israeli firms and others doing business in Israel or with Israeli companies. Although we are precluded from marketing our products to these countries, we believe that in the past the boycott has not had a material adverse effect on us. There can be no assurance that restrictive laws, policies or practices directed towards Israeli businesses will not have an adverse impact on the expansion of our business.

Generally, all male adult citizens and permanent residents of Israel under the age of 48 are, unless exempt, obligated to perform up to 35 days of military reserve duty annually. Additionally, all residents of this age are subject to being called to active duty at any time under emergency circumstances. Most of our male officers and employees are currently obligated to perform annual reserve duty. Although we have operated effectively under these requirements, we cannot assess the full impact of these requirements on our workforce or business if conditions should change, and no prediction can be made as to the effect on us of any expansion of these obligations.

#### **Economic Conditions**

Israel's economy has been subject to numerous destabilizing factors, including a period of rampant inflation in the early to mid-1980s, low foreign exchange reserves, fluctuations in world commodity prices, military conflicts and civil unrest and employees strikes. The Israeli Government has, for these and other reasons, intervened in the economy by utilizing, among other things, fiscal and monetary policies, import duties, foreign currency restrictions and control of wages, prices and exchange rates. The Israeli Government has periodically changed its policies in all of these areas.

Israeli law limits foreign currency transactions and transactions between Israeli and non-Israeli residents. The Controller of Foreign Exchange at the Bank of Israel, through "general" and "special"

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permits, may regulate or waive these limitations. Until recently, transactions in foreign currency were strictly regulated. In May 1998, the Bank of Israel liberalized its foreign currency regulations by issuing a new "general permit" providing that foreign currency transactions are generally permitted, although some restrictions still apply. For example, foreign currency transactions by institutional investors are restricted, including futures contracts between foreign and Israeli residents if one of the base assets is Israeli currency, unless this is a fixed price forward contract for a period of less than one month. Investments outside of Israel by pension funds and insurers are also restricted. Under the new general permit, all foreign currency transactions must be reported to the Bank of Israel, and a foreign resident must report to his financial mediator about any contract for which Israeli currency is being deposited in, or withdrawn from, his account. We cannot currently assess what impact, if any, this liberalization will have on us. We also cannot predict its impact on the value of the NIS compared to the dollar and the corresponding effect on our financial statements.

The Israeli Government's monetary policy contributed to relative price and exchange rate stability in recent years, despite fluctuating rates of economic growth and a high rate of unemployment. There can be no assurance that the Israeli Government will be successful in its attempts to keep prices and exchange rates stable. Price and exchange rate instability may have a material adverse effect on our business.

The following table sets forth, for the periods indicated, information with respect to the Israeli CPI, the rate of inflation in Israel, the rate of devaluation of the NIS against the dollar and the rate of inflation adjusted for devaluation. For purposes of this table, the Israeli CPI figures use 1993 as a base equal to 100. These figures are based on reports of the Israel Central Statistics Bureau. Inflation is the percentage change in the Israeli CPI between the last month of the period indicated and December of the preceding year. Devaluation is the percentage increase in the value of the dollar in relation to Israeli currency during the period indicated. Inflation adjusted for devaluation is obtained by multiplying by 100 the results obtained from dividing the Israeli inflation rate plus 100 by the annual devaluation rate plus 100, and then subtracting 100.

				Inflation
				Adjusted
Nine Months	Israeli	Israeli		for
Ended	Consumer	Inflation	Devaluation	Devaluation
September 30,	Price Index	Rate %	Rate %	%
2003	179.3	(1.5)	(6.2)	5.0
				Inflation
				Adjusted
	Israeli	Israeli		for
Year Ended	Consumer	Inflation	Devaluation	Devaluation
December 31,	Price Index	Rate %	Rate %	%
2002	182.0	6.5	7.3	(0.7)

2001	170.9	1.4	9.3	(7.2)
2000	168.5	0	(2.7)	2.8
1999	168.5	1.3	(0.2)	1.5
1998	166.3	8.6	17.6	(7.7)

#### **Trade Relations**

Israel is a member of the United Nations, the International Monetary Fund, the International Bank for Reconstruction and Development and the International Finance Corporation. Israel is a signatory to the General Agreement on Tariffs and Trade, which provides for the reciprocal lowering of trade barriers among its members. In addition, Israel has been granted preferences under the Generalized System of Preferences from the United States, Australia, Canada and Japan. These preferences allow Israel to export the products covered by this program either duty-free or at reduced tariffs. Israel became associated with the European Economic Community, now known as the European Union, in a Free Trade Agreement concluded in 1975, which confers advantages with respect to Israeli exports, including electronic products, to most European countries, allows Israeli companies to participate in European research and development programs and tenders and obligates Israel to lower its tariffs with respect to imports from those countries over a number of years.

Israel and the United States entered into a Free Trade Agreement in 1985. The Free Trade Agreement has eliminated all tariff and some non-tariff barriers on most trade between the two

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countries. In 1993, Israel entered into an agreement establishing a free trade zone with the European Free Trade Association, whose members include Austria, Finland, Iceland, Liechtenstein, Norway, Sweden and Switzerland. In recent years, Israel has established commercial and trade relations with a number of other nations, including China, India, Russia and other nations in Asia and Eastern Europe, with which Israel had not previously had these relations.

#### Assistance from the United States

Israel receives significant amounts of economic and military assistance from the United States, averaging approximately \$3 billion annually over the last several years. We cannot assure you that foreign aid from the United States will continue at or near amounts received in the past. If the grants for economic and military assistance are eliminated or reduced significantly, the Israeli economy could suffer material adverse consequences.

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### Shares Eligible for Future Sale

When the offering is completed, assuming no exercise of the underwriters' over-allotment option we will have a total of 60,779,146 ordinary shares outstanding. The 12,000,000 shares offered by this prospectus will be freely tradeable unless they are purchased by our "affiliates," as defined in Rule 144 under the Securities Act of 1933. Of our 48,779,146 outstanding ordinary shares as of October 31, 2003, excluding treasury stock, 11,895,032 are freely

tradable and held by non-affiliates and an additional 1,073,905 shares held by non-affiliates are eligible for sale pursuant to Rule 144 under the Securities Act of 1933, subject to the time, volume and manner of sale limitations of Rule 144. Of these shares, 476,213 and 597,692 shares will be freely tradable under Rule 144(k) by April 2004 and October 2004, respectively. An additional 80,456 shares held by non-affiliates will be eligible for sale under Rule 144(k) by May 2004. In addition, our affiliates (Israel Corporation Technologies (ICTech) Ltd., SanDisk Corporation, Alliance Semiconductor Corporation and Macronix (BVI) Co., Ltd.) hold 35,729,753 of our shares, of which 4,086,037 are freely tradable and 26,380,558 are currently eligible for sale subject to the time, volume and manner of sale limitations of Rule 144. An additional 4,425,076 and 838,082 shares held by these affiliates will be eligible for sale under Rule 144 by May 2004 and August 2004, respectively, subject to the share transfer restrictions set forth in the shareholders agreement to which they are a party and which remain in effect through January 2008. In addition, 22,004,948 ordinary shares are issuable upon the exercise of options and warrants and the conversion of our convertible debentures. ICTech and our large wafer partners, as well as our directors and officers, holding an aggregate of 35,745,804 ordinary shares, have agreed under written "lock-up" agreements that, for a period of 180 days from the date of this prospectus, they will not sell their shares.

Pursuant to the registration rights agreement we entered into in January 2001, SanDisk, Alliance Semiconductor, Macronix and ICTech have the right to demand up to six registrations of their shares under the Securities Act of 1933, and these shareholders, together with Quicklogic as a group, may demand one additional registration of their shares. These shareholders are also entitled to unlimited incidental registrations. In addition, The Challenge Fund-Etgar II is entitled to unlimited incidental registrations in connection with the exercise of a demand registration right by any of these shareholders. If our major wafer partners and ICTech invest in our securities in the framework of a rights offering or private placement required by our banks (see "Material Agreements-Credit Facility"), we have committed to register such securities for resale. We have also agreed with these shareholders that they will not exercise their registration rights, until the earlier of December 31, 2005 or such time that we will have fulfilled our fundraising obligations under the credit facility, other than with respect to securities issued in the investments described in the prior sentence.

Pursuant to the Registration Rights Agreement with Ontario Teachers' Pension Plan Board, we filed a Registration Statement on Form F-3 in September 2003.

Our banks and the Fab 2 construction contactor are also entitled to unlimited incidental registrations pursuant to the warrants issued to them exercisable into our ordinary shares.

We have filed registration statements on Form S-8 under the Securities Act to register the ordinary shares issuable under all of our share option plans. Shares issued pursuant to these share option plans are eligible for resale in the public market without restriction, subject to Rule 144 limitations applicable to affiliates and the lock-up agreements described above.

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## Underwriting

We have entered into an underwriting agreement with the underwriters named below. CIBC World Markets Corp., U.S. Bancorp Piper Jaffray Inc. and C.E. Unterberg, Towbin are acting as representatives of the underwriters.

The underwriting agreement provides for the purchase of a specific number of ordinary shares by each of the underwriters. The underwriters' obligations are several, which means that each underwriter is required to purchase a

specified number of ordinary shares, but is not responsible for the commitment of any other underwriter to purchase ordinary shares. Subject to the terms and conditions of the underwriting agreement, each underwriter has severally agreed to purchase the number of ordinary shares set forth opposite its name below:

Number of
Underwriter Shares
CIBC World Markets Corp.
U.S. Bancorp Piper Jaffray Inc.
C.E. Unterberg, Towbin
Total 12,000,000

The underwriters have agreed to purchase all of the ordinary shares offered by this prospectus (other than those covered by the over-allotment option described below) if any are purchased. Under the underwriting agreement, if an underwriter defaults in its commitment to purchase ordinary shares, the commitments of non-defaulting underwriters may be increased or the underwriting agreement may be terminated, depending on the circumstances.

The ordinary shares should be ready for delivery on or about available funds. The underwriters are offering the ordinary shares subject to various conditions and may reject all or part of any order. The representatives have advised us that the underwriters propose to offer the ordinary shares directly to the public at the public offering price that appears on the cover page of this prospectus. In addition, the representatives may offer some of the ordinary shares to other securities dealers at such price less a concession of per ordinary share. The underwriters may also allow, and such dealers may reallow, a concession not in excess of \$ per ordinary share to other dealers. After the ordinary shares are released for sale to the public, the representatives may change the offering price and other selling terms at various times.

We have granted the underwriters an over-allotment option. This option, which is exercisable for up to 30 days after the date of this prospectus, permits the underwriters to purchase a maximum of 1,800,000 additional ordinary shares from us to cover overallotments. If the underwriters exercise all or part of this option, they will purchase shares covered by the option at the public offering price that appears on the cover page of this prospectus, less the underwriting discount. If this option is exercised in full, the total price to public will be \$ , and the total proceeds to us will be \$ . The underwriters have severally agreed that, to the extent the over-allotment option is exercised, they will each purchase a number of additional shares proportionate to the underwriter's initial amount reflected in the foregoing table.

The following table provides information regarding the amount of the discount to be paid to the underwriters by us:

Total Without Total With
Exercise of Full Exercise of
Per Over-Allotment Over-Allotment
Share Option Option

We estimate that our total expenses of the offering, excluding the underwriting discount, will be approximately \$\\$.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933.

We, our officers and directors and other stockholders have agreed to a 180-day "lock up" with respect to 35,745,804 ordinary shares that they beneficially own, including securities that are convertible into ordinary shares and securities that are exchangeable or exercisable for ordinary shares. This means that, for a period of 180 days following the date of this prospectus, we and such persons may not offer, sell, pledge or otherwise dispose of these securities without the prior written consent of CIBC World Markets Corp.

Rules of the Securities and Exchange Commission may limit the ability of the underwriters to bid for or purchase shares before the distribution of the shares is completed. However, the underwriters may engage in the following activities in accordance with the rules:

Stabilizing transactions — The representatives may make bids or purchases for the purpose of pegging, fixing or maintaining the price of the shares, so long as stabilizing bids do not exceed a specified maximum.

Over-allotments and syndicate covering transactions — The underwriters may sell more shares of our ordinary shares in connection with this offering than the number of shares than they have committed to purchase. This over-allotment creates a short position for the underwriters. This short sales position may involve either "covered" short sales or "naked" short sales. Covered short sales are short sales made in an amount not greater than the underwriters' over-allotment option to purchase additional shares in this offering described above. The underwriters may close out any covered short position either by exercising their over-allotment option or by purchasing shares in the open market. To determine how they will close the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market, as compared to the price at which they may purchase shares through the over-allotment option. Naked short sales are short sales in excess of the over-allotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that, in the open market after pricing, there may be downward pressure on the price of the shares that could adversely affect investors who purchase shares in this offering.

Penalty bids — If the representatives purchase shares in the open market in a stabilizing transaction or syndicate covering transaction, they may reclaim a selling concession from the underwriters and selling group members who sold those shares as part of this offering.

Passive market making — Market makers in the shares who are underwriters or prospective underwriters may make bids for or purchases of shares, subject to limitations, until the time, if ever, at which a stabilizing bid is made.

Similar to other purchase transactions, the underwriters' purchases to cover the syndicate short sales or to stabilize the market price of our ordinary shares may have the effect of raising or maintaining the market price of our ordinary shares or preventing or mitigating a decline in the market price of our ordinary shares. As a result, the price of our ordinary shares may be higher than the price that might otherwise exist in the open market. The imposition of a penalty bid might also have an effect on the price of the shares if it discourages resales of the shares.

Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of the shares. These transactions may occur on the Nasdaq National Market or otherwise. If such transactions are commenced, they may be discontinued without notice at any time.

#### Material Agreements

Credit Facility. In January 2001, we entered into a credit facility with two leading Israeli banks, pursuant to which the banks committed to make available to us up to \$550 million of loans for the Fab 2 project. As a result of our reduction of the total project cost of Fab 2 through the renegotiation of equipment prices and a change of equipment suppliers, we and our banks have agreed to amend the credit facility such that the total amount of loans committed by the banks has been reduced to \$500 million. Pursuant to the comprehensive amendment to the credit facility signed on November, 11, 2003, the loans may be drawn down through December 2004 and are repayable as follows: (i) with respect to loans received by us through December 31, 2003, we will repay our banks on December 31, 2003 all amounts due by such date and, concurrently, will draw down an equivalent amount from our banks on such date to be repaid in 12 quarterly installments commencing on March 31, 2007 and bearing interest, payable quarterly, at LIBOR plus 2.5%, and (ii) with respect to loans received after December 31, 2003, we will repay our banks, in 12 quarterly installments, or before the maturity date of the facility, commencing three years from the drawdown date of each loan and bearing interest, payable quarterly, at LIBOR plus 2.5%. As of the date of this prospectus, we have drawn \$341 million in loans. We pay the banks an annual commitment fee of 0.25% of any unused portion of the facility. The banks' obligation to fund the loans is subject to the satisfaction of the following revised Fab 2 production capacity milestones: (i) successful production of 10,000 wafer starts per month by June 30, 2004 (or February 15, 2005, when taking into account a seven and a half month grace period) and (ii) full manufacturing capacity of 33,000 wafer starts per month by December 31, 2007, as well as to additional conditions and covenants, including restrictions on debt, prohibition on the issuance of dividends prior to 2008, limitations on a change of ownership (which generally requires that, through January 2006, our three largest wafer partners not sell the shares they purchased in connection with each of their \$75 million investments in our shares other than a portion of their holdings which may be sold prior to this date and that Israel Corporation Technologies (ICTech) Ltd. hold during this period at least the higher of (i) eight million of our ordinary shares or (ii) 16.5% of our issued share capital less two million ordinary shares, with portions of the shares held by our wafer partners being released from these restrictions through January 2008 and January 2010 with respect to ICTech).

Under the terms of the amended facility agreement, we must also meet certain financial ratios. For any quarter commencing from the third quarter of 2001, the "life of loan coverage ratio" (which is the ratio of our Fab 2 net cash flow to our total debt related to Fab 2 in any quarter) is not permitted to be less than 1.3 at any time. In addition, our ratio of equity to assets is not permitted to be less than 0% until the end of 2006, 20% during 2007 and 30% thereafter, until the termination of the facility agreement. The facility agreement also provides that we must comply with additional financial covenants relating to quarterly sales and quarterly earnings before interest, taxes, depreciation and amortization (quarterly EBITDA). As of the second quarter of 2004, our Fab 2 quarterly sales and Fab 2 quarterly EBITDA must be no lower than certain amounts set forth in the facility agreement, as amended. As of the second quarter of 2005, we must comply with three additional financial covenants relating to annual EBITDA, EBITDA over Debt Services and Debt over EBITDA. As of September 30, 2003, we were in compliance with all of the above financial covenants.

Pursuant to the amendment, we have to raise an aggregate amount of \$152 million from specified financial sources by the following dates, and we must raise \$24.6 million from our Fab 2 investors in connection with their fifth milestone payment by December 11, 2003 (see "Certain Transactions — Amendment to Fifth Milestone Payment Schedule"):

- \$28.0 million by March 11, 2004,
- \$25.5 million by June 30, 2004,

- \$25.5 million by December 31, 2004,
- \$36.5 million by June 30, 2005, and
- \$36.5 million by December 31, 2005.

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The amendment to the credit facility provides that, should we fail to meet any of these fundraising obligations, the banks will have the option to demand that we consummate a rights offering under the following terms:

The amount of the rights offering shall equal to the difference between the amount actually raised towards the failed financing obligation and what was to be raised.

We will offer convertible securities to all of our shareholders in units comprised of convertible debentures, convertible into, and warrants exercisable for, our ordinary shares so that each unit will include 45% warrant coverage of the amount of shares that may be issued on the basis of an assumed conversion of the convertible debentures.

• Each convertible debenture will bear interest at the rate of 6% per year; 1% interest will be payable once a year, and the balance of such interest (5%) will accrue until the maturity of the convertible debentures on a compound basis, which maturity shall be a date no earlier than December 31, 2009.

The convertible debentures (principal and compounded interest) will be convertible into our ordinary shares at a rate equal to the amount that was to be raised plus the accumulated interest at such time of conversion divided by the lower of a (i) 50% discount of the market price of our shares at the close of trading, on the trading day immediately prior to the date of the prospectus relating to the rights offering or (ii) 50% discount of the average market price of our ordinary shares during the 15 consecutive trading days prior to the date of prospectus relating to the rights offering.

Each warrant will be exercisable into one of our ordinary shares at such exercise price, which is equivalent to 80% of the lower of (i) the trading price for our ordinary shares at the close of trading on the trading day immediately prior to the date of prospectus relating to the rights offering or (ii) the average trading price for our shares during the 15 consecutive trading days preceding the date of the prospectus relating to the rights offering.

• The warrants shall expire five years from their date of issuance.

If our banks exercise this option, The Israel Corporation Ltd. ("TIC") has undertaken to our banks to exercise all of the rights it receives in the rights offering. In addition, as part of TIC's commitment, it will purchase from us additional securities in a private placement on the same terms as the rights offering, in an amount equal to 50/93 of the difference between what we actually raised towards the failed financing obligation and what was to be raised, less amounts raised in the rights offering, if any (including less any amounts invested in the rights offering in connection with TIC's exercise of its own rights). TIC's undertaking to our banks is limited to an aggregate of \$50 million. If certain of our shareholders participate in the above investments, then their investments will be deemed to be investments made by TIC towards its \$50 million commitment. In the event that the rights offering cannot be completed, TIC has undertaken to purchase from us in a private placement 50/93 of the amount we were to raise in the rights offering. TIC may fulfill its investment commitments through ICTech, a wholly-owned subsidiary of TIC.

TIC's commitment and our obligation to consummate a rights offering expires on the earlier of: (i) such time that we will fulfill our fundraising obligation to raise an aggregate of \$152 million under the Credit Facility, (ii) such time as TIC has invested \$50 million as described above, or (iii) June 30, 2006. Under certain conditions, the term of TIC's undertaking and our corresponding obligations may be reduced.

Following the receipt of the above described investments from TIC, our banks will increase the total amount which may be drawn under the credit facility at a ratio of \$43 for every \$50 invested, up to \$43 million in the aggregate, which will be repayable by the earlier of (i) December 31, 2007 and (ii) three years from the date the loan is drawn. Should we draw down loans using this increased amount of our facility, our banks will be issued 30% warrant coverage of the amount drawn down, based on the average closing price of our ordinary shares during the 15 consecutive trading days prior to the time we draw down such loans.

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In consideration for TIC's commitment to complete this investment, we have agreed to issue warrants to ICTech comprised of a commitment fee and a subscription fee:

• The commitment fee will be 1.0% of the \$50 million commitment less TIC's portion of a theoretical rights offering if held on November 11, 2003 (the date we signed the amendment to the credit facility). We will therefore issue warrants for the purchase of 58,906 of our ordinary shares.

The subscription fee will be 5% of the total amount of money invested by TIC in consideration for all of the unsubscribed rights that it actually purchases.

The exercise price for the warrants will be \$6.17 (the 15 day average closing price of our shares or Nasdaq prior to the date the amendment was signed with our banks) with respect to the commitment fee and the 15 day average closing price of our shares prior to the date of the rights offering prospectus with respect to the subscription fee. The warrants shall expire five years from their date of issuance.

We have agreed to indemnify ICTech and TIC for any liabilities they incur with respect to these arrangements, up to a maximum of \$100 million as follows: up to \$25 million cash and any amount exceeding such \$25 million limit will earn interest at LIBOR plus 2.5% and will be paid on the same terms that we repay our loans to our banks. In addition, we have agreed to use our best efforts to insure this indemnification undertaking.

Our revised amendment to the credit facility further provides that in the event of certain triggering events, such as the commencement of bankruptcy or receivership, proceedings against us ordered by a court of competent jurisdiction or the prior determination of an arbitrator that bankruptcy or receivership proceedings would be issued by a court against us were a petition to be filed with a court seeking reorganization or arrangement under applicable bankruptcy law or our requesting creditor protection, our banks will be able to bring a firm offer made by a potential investor to purchase our shares at the price provided in the offer. In such case, we shall be required thereafter to procure a rights offering to invest up to 60% of the amount of this offer on the same terms. If the offeror intends to purchase a majority of our outstanding share capital, the rights offering will be limited to allow for this, unless ICTech and the wafer partners (excluding QuickLogic) agree to exercise in a rights offering rights applicable to their shareholdings and agree to purchase in a private placement enough shares to ensure that the full amount of the offer is invested.

If, as a result of any default, our banks were to accelerate our obligations, we would be obligated to immediately repay all loans made by the banks, plus penalties, and the banks would be entitled to exercise the remedies available to them under the credit facility, including enforcement of their lien against all our assets. An event of default under the credit facility and the subsequent enforcement by the banks of their remedies under the credit facility may allow our wafer partners, financial investors and the Investment Center of the State of Israel to declare a breach of our obligations to them and entitle them to exercise the remedies available under our agreements with them.

In January 2001, we also issued the banks warrants to purchase an aggregate of 400,000 ordinary shares at a purchase price of \$6.20 per share, exercisable until January 2006. Pursuant to the amendment to the credit facility, the purchase price of these warrants was repriced to \$6.17, and we issued our banks additional five year warrants to purchase an aggregate of 896,596 ordinary shares at a purchase price of \$6.17 per share, exercisable until November 2008. In addition, in the event that our banks increase our credit facility as described above, we will issue our banks additional five-year warrants equivalent to 30% of the amount drawn down based on the average closing price of our ordinary shares during the 15 trading days prior to the time we draw down such loan.

We have registered liens in favor of the banks on substantially all of our present and future assets. The agreements with our banks restrict our ability to place liens on our assets (other than to the State of Israel in respect of investment grants) without the prior consent of the banks.

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#### Fab 2 Security Issuances

Since the beginning of the Fab 2 project, we have completed a series of capital raising transactions which involved the issuance of convertible securities and have established long-term commercial relationships between our security holders and us.

Sale of Units. In January 2002, we completed a sale of units in Israel, resulting in initial gross proceeds of approximately \$23.2 million. Costs associated with the offer and sale of the units were approximately \$1.7 million. Each of the 552,899 units sold was composed of 200 convertible debentures, four Options (Series 1) exercisable to purchase ordinary shares and one Option (Series A) exercisable to purchase 100 convertible debentures. Each debenture is NIS 1 in principal amount, is adjusted to reflect increases in the Israeli Consumer Price Index and bears interest at a rate of 4.7% per annum, payable yearly commencing January 20, 2003. Principal is payable in four installments in January of 2006 through 2009. Prior to December 31, 2008, except between January 1 and January 20 in the years 2006, 2007 and 2008, the debentures are convertible into ordinary shares at a conversion rate of one ordinary share per NIS 41 amount of debentures. The debentures are unsecured and are subordinated to the rights of the banks under our credit facility. Each Option (Series A) was exercisable for 100 convertible debentures prior to March 20, 2002 for an exercise price of NIS 85. All of the Options (Series A) have fully expired without being exercised. Each Option (Series 1) is exercisable into one ordinary share prior to January 20, 2006. As of September 30, 2003, the exercise price of each Option (Series 1), linked to the Israeli Consumer Price Index, was \$9.30. The debentures and options have been listed to trade only on the Tel Aviv Stock Exchange (Series 1 and Series A; any ordinary share issued upon conversion of debentures or exercise of options will be traded on both the Tel Aviv Stock Exchange and Nasdaq. As of September 30, 2003, NIS 113,475,535 (or \$25.6 million) in convertible debentures and 2,211,596 Options (Series 1) were outstanding).

Rights Offering. In September 2002, we distributed transferable rights to our shareholders and certain of our employees to purchase up to an aggregate of 6,858,469 of our ordinary shares and 3,086,311 warrants to purchase our ordinary shares. One right was distributed for every 4.94 ordinary shares or employee options that were held on the record date by our shareholders and employees. Each full right entitled our shareholders and employees to purchase, at a subscription price of \$5.00, one ordinary share and 0.45 of a warrant. Each whole warrant is exercisable into one ordinary share, at an exercise price of \$7.50. The rights were exercisable until October 23, 2002. The rights offering resulted in initial gross proceeds of approximately \$20.5 million. Costs associated with the offer and sale of the rights were approximately \$0.8 million. The ordinary shares issuable upon exercise of the rights have been listed to trade on the Nasdaq National Market and the Tel Aviv Stock Exchange (TSEMW and TSEM.W2). All warrants issued in

connection with the rights offering are exercisable until October 31, 2006 and have been listed to trade on the Tel Aviv Stock Exchange and Nasdaq SmallCap Market.

#### Legal Matters

The validity of the ordinary shares offered in this prospectus will be passed upon for us by Yigal Arnon & Co., Israeli counsel to Tower. In addition, certain other matters in connection with this offering with respect to United States law will be passed upon for us by Ehrenreich, Eilenberg & Krause LLP, U.S. counsel to Tower. Certain legal matters in connection with the offering will be passed upon for the underwriters by Meitar Liquornik Geva & Leshem Brandwein, Israeli counsel to the underwriters, and by Skadden, Arps, Slate, Meagher & Flom LLP, U.S. counsel for the underwriters.

#### **Experts**

We have included our consolidated financial statements for the years ended December 31, 2002, 2001 and 2000 in this prospectus and the related Registration Statement on Form F-3, of which this prospectus is a part, which have been audited by Brightman Almagor & Co., a member of Deloitte Touche Tohmatsu, independent auditors, as stated in their reports appearing herein and elsewhere in

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the registration statement, and are included in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

With respect to the unaudited condensed interim consolidated financial statements for the periods ended September 30, 2003 and 2002, which are included herein, Brightman Almagor & Co. have applied limited procedures in accordance with professional standards for a review of such financial statements. However, they did not audit and they do not express an opinion on that condensed interim consolidated financial statements. Accordingly, the degree of reliance on their accountants' report on such financial statements should be restricted in light of the limited nature of the review procedures applied. Brightman Almagor & Co. are not subject to the liability provisions of Section 11 of the Securities Act of 1933 for their accountants' report on the unaudited condensed interim consolidated financial statements since that report is not a "report" or a "part" of the registration statement prepared or certified by an accountant within the meaning of Sections 7 and 11 of that Act.

#### Where You Can Find More Information

We have filed a registration statement on Form F-3 with the Securities and Exchange Commission in connection with this offering. In addition, we file annual reports with, and furnish information to, the Securities and Exchange Commission. You may read and copy the registration statement and any other documents we have filed at the Securities and Exchange Commission's Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. Please call the Securities and Exchange Commission at 1-800-SEC-0330 for further information on the Public Reference Room. Our Securities and Exchange Commission filings are also available to the public at the Securities and Exchange Commission's Internet site at "http://www.sec.gov".

This prospectus is part of the registration statement and does not contain all of the information included in the registration statement. Whenever a reference is made in this prospectus to any of our contracts or other documents, the reference may not be complete and, for a copy of the contract or document, you should refer to the exhibits that are a

part of the registration statement.

The Securities and Exchange Commission allows us to "incorporate by reference" into this prospectus the information we file with it, which means that we can disclose important information to you by referring you to those documents. Information incorporated by reference is part of this prospectus. Later information filed with the Securities and Exchange Commission will update and supersede this information.

This prospectus will be deemed to incorporate by reference the following documents:

our annual report on Form 20-F for the year ended December 31, 2002, filed on April 14, 2003, to the extent the information in that report has not been updated or superseded by this prospectus; any amendment to our annual report on Form 20-F for the year ended December 31, 2002, and any annual report on Form 20-F or amendment thereto filed subsequent to the date hereof and prior to the termination of this offering; and

• any report on Form 6-K submitted by us to the SEC prior to the termination of this offering and identified by us as being incorporated by reference into this prospectus.

You may request a copy of these filings, at no cost, by contacting us at: Ramat Gavriel Industrial Park, Post Office Box 619, Migdal Haemek, 23105 Israel, Attn: Secretary, telephone number 972-4-650-6611.

A copy of this registration statement, our articles of association and the documents filed as exhibits are available for inspection at our offices at Hamada Avenue, Ramat Gavriel Industrial Park, Migdal Haemek, Israel.

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#### TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY

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INDEPENDENT AUDITORS' REPORT TO THE SHAREHOLDERS OF TOWER SEMICONDUCTOR LTD.

We have audited the accompanying consolidated balance sheets of Tower Semiconductor Ltd. (the "Company") and subsidiary as of December 31, 2002 and 2001, and the related consolidated statements of operations, changes in shareholders' equity and cash flows for each of the three years in the period ended December 31, 2002. These financial statements are the responsibility of the Company's Board of Directors and management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the Board of Directors and management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company and subsidiary as of December 31, 2002 and 2001, and the consolidated results of their operations, changes in shareholders' equity and cash flows for each of the three years in the period ended December 31, 2002, in accordance with accounting principles generally accepted in Israel.

Accounting principles generally accepted in Israel vary in certain significant respects from accounting principles generally accepted in the United States of America. The application of the latter would have affected the determination of the financial position and results of operations as of the dates and for the years presented to the extent summarized in Note 20.

Brightman Almagor & Co. Certified Public Accountants A member of Deloitte Touche Tohmatsu

Tel Aviv, Israel February 24, 2003

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## CONSOLIDATED BALANCE SHEETS

(dollars in thousands, except share data and per share data)

	Note	As of Dec	cember 31, 2001
ASSETS			
CURRENT ASSETS			
Cash and cash equivalents		\$ 7,857	\$ 19,610
Short-term interest-bearing deposits		10,500	10,044
Cash and short-term interest-bearing deposits designated for		,	,
investments relating to Fab 2		51,338	3,548
Trade accounts receivable (net of allowance for doubtful		·	·
accounts of \$155 and \$215, respectively)	15	7,456	3,321
Other receivables	3	21,322	21,250
Inventories	4	10,201	8,428
Other current assets		1,407	1,219
Total current assets		110,081	67,420
LONG-TERM INVESTMENTS		·	·
Long-term interest-bearing deposits designated for			
investments relating to Fab 2		11,893	_
Other long-term investment	5	6,000	6,000
·		17,893	6,000
PROPERTY AND EQUIPMENT, NET	6	493,074	340,724
OTHER ASSETS	7	95,213	57,910
TOTAL ASSETS		\$ 716,261	\$ 472,054
LIABILITIES AND SHAREHOLDERS' EQUITY			
CURRENT LIABILITIES			
Short-term debt	8	\$ 4,000	\$ 14,000
Trade accounts payable		76,083	64,484
Other current liabilities	9	8,071	5,271
Total current liabilities		88,154	83,755
LONG-TERM DEBT	10	253,000	115,000
CONVERTIBLE DEBENTURES	11	24,121	_
OTHER LONG-TERM LIABILITIES	12	5,406	2,584
LONG-TERM LIABILITY IN RESPECT OF CUSTOMERS'			
ADVANCES	13A	47,246	17,910
Total liabilities		417,927	219,249
SHAREHOLDERS' EQUITY			
Ordinary shares, NIS 1 par value – authorized 70,000,000			
shares; issued 44,735,532 and 26,297,102 shares, respectively	14	11,294	7,448
Additional paid-in capital		400,808	307,865
Shareholder receivables and unearned compensation		(53)	(195)
Accumulated deficit		(104,643)	(53,241)
		307,406	261,877
Treasury stock, at cost - 1,300,000 shares	14	(9,072)	(9,072)
Total shareholders' equity		298,334	252,805
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		\$ 716,261	\$ 472,054

See notes to consolidated financial statements.

## TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY

# CONSOLIDATED STATEMENTS OF OPERATIONS (dollars in thousands, except share data and per share data)

		Year ended December 31,			
	Note	2002	2001	2000	
SALES	13D, 15	\$ 51,801	\$ 52,372	\$104,775	
COST OF SALES	13A	67,022	76,733	88,787	
GROSS PROFIT (LOSS)		(15,221)	(24,361)	15,988	
OPERATING COSTS AND EXPENSES					
Research and development		17,031	9,556	8,965	
Marketing, general and administrative	13A	17,091	14,489	11,428	
		34,122	24,045	20,393	
OPERATING LOSS		(49,343)	(48,406)	(4,405)	
FINANCING INCOME (EXPENSE), NET	16	(2,104)	1,465	1,394	
OTHER INCOME (EXPENSE), NET	5B, 5D	45	8,419	(478)	
LOSS BEFORE INCOME TAX EXPENSE		(51,402)	(38,522)	(3,489)	
INCOME TAX EXPENSE	17	_	_	(500)	
LOSS FOR THE YEAR		\$ (51,402)	\$ (38,522)	\$ (3,989)	
BASIC LOSS PER ORDINARY SHARE					
Loss per share		\$ (1.63)	\$ (1.92)	\$ (0.26)	
Loss used to compute basic loss per share		\$ (51,402)	\$ (38,459)	\$ (3,544)	
Weighted average number of ordinary shares					
outstanding - in thousands		31,523	20,020	13,676	

See notes to consolidated financial statements.

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## TOWER SEMICONDUCTOR LTD.

## STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (dollars in thousands, except share data and per share data)

Total

	Ondinomy	ahawaa	paid-in	on r	eceivables	rAccumulated deficit	Treasury stock	
	Ordinary Shares	Amount	capital		and unearned			
				a warrantco	•			
ALANCE - JANUARY 1, 2000	13,263,593	\$ 4,329	\$138,539	\$ —	\$ (945)	\$ (10,730)	\$ (9,072)	\$122,121
xercise of share options	299,013	75	2,566					2,641
nearned compensation - employees			1,857		(1,857)			
nearned compensation - consultants mortization of unearned			1,576					1,576
ompensation					1,691			1,691
epayment of shareholder receivables					618			618
roceeds on account of a warrant				9,990				9,990
oss for the year						(3,989)		(3,989
ALANCE - DECEMBER 31, 2000	13,562,606	\$ 4,404	\$144,538	\$ 9,990	\$ (493)	\$ (14,719)	\$ (9,072)	\$134,648
suance of shares, net of related costs	11,930,675	2,850	147,798					150,648
xercise of a warrant	772,667	187	9,813	(9,990)				10
xercise of share options	31,154	7	265					272
ancellation of unearned								
ompensation in respect of								
on-vested options, net			(15)		15			
tock-based compensation related to								
e Facility Agreement with the								
anks, Note 14B(5)			5,466					5,466
mortization of unearned								
ompensation					283			283
oss for the year						(38,522)		(38,522
ALANCE - DECEMBER 31, 2001	26,297,102	\$ 7,448	\$307,865	\$ —	\$ (195)	\$ (53,241)	\$ (9,072)	\$252,805
suance of shares, net of related costs	18,438,430	3,846	92,943					96,789
mortization of unearned								
ompensation					142			142
oss for the year						(51,402)		(51,402
ALANCE - DECEMBER 31, 2002	44,735,532	\$11,294	\$400,808	\$ —	\$ (53)	\$ (104,643)	\$ (9,072)	\$298,334

See notes to consolidated financial statements.

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## TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY

CONSOLIDATED STATEMENTS OF CASH FLOWS (dollars in thousands, except share data and per share data)

Year ended December 31, 2002 2001 2000

CASH FLOWS - OPERATING ACTIVITIES			
Loss for the year	\$ (51,402)	\$ (38,522)	\$ (3,989)
Adjustments to reconcile loss for the year to net cash provided by	φ (31,102)	Ψ (30,322)	Ψ (3,707)
operating activities:			
Income and expense items not involving cash flows:			
Depreciation and amortization	18,821	21,721	25,917
Other expense (income), net	(45)	(8,419)	478
Earnings on marketable debt securities	_		- (67)
Changes in assets and liabilities:			,
Decrease (increase) in trade accounts receivable	(4,135)	8,602	(3,821)
Decrease (increase) in other receivables and other current assets	(1,305)	649	(894)
Decrease (increase) in inventories	(609)	8,402	(2,113)
Increase (decrease) in trade accounts payable	4,686	(5,190)	(710)
Increase (decrease) in other current liabilities	2,764	(999)	723
Increase in other long-term liabilities	2,822	105	1,421
č	(28,403)	(13,651)	16,945
Increase (decrease) in long-term liability in respect of customers'	, , ,	, , ,	,
advances	29,336	17,910	(760)
Net cash provided by operating activities	933	4,259	16,185
CASH FLOWS - INVESTING ACTIVITIES		,	-,
Increase in cash, short-term and long-term interest-bearing			
deposits designated for investments relating to Fab 2	(59,683)	(3,548)	
Investments in property and equipment	(205,099)	(295,203)	(53,530)
Investment grants received	40,481	56,454	14,599
Proceeds from sale of equipment	70	229	168
Investments in other assets	(34,290)	(32,098)	(16,121)
Decrease (increase) in deposits, net	(456)	(1,599)	22,930
Proceeds from realization of marketable debt securities	· _	- ` _	5,127
Proceeds from sale of (investments in) long-term investments		- 11,050	(2,850)
Net cash used in investing activities	(258,977)	(264,715)	(29,677)
CASH FLOWS - FINANCING ACTIVITIES			, , ,
Proceeds from issuance of shares, net	96,751	152,586	_
Proceeds from exercise of share options	_	- 272	2,641
Proceeds on account of warrant and exercise of a warrant	_	- 10	9,990
Increase (decrease) in short-term debt	(10,000)	10,000	_
Repayment of long-term debt	(4,000)	(15,064)	
Proceeds from long-term debt	142,000	122,000	
Repayment of shareholder receivables			- 618
Proceeds from sale of securities, net	21,540	_	
Net cash provided by financing activities	246,291	269,804	13,249
INCREASE (DECREASE) IN CASH AND CASH			
EQUIVALENTS	(11,753)	9,348	(243)
CASH AND CASH EQUIVALENTS - BEGINNING OF YEAR	19,610	10,262	10,505
CASH AND CASH EQUIVALENTS - END OF YEAR	\$ 7,857	\$ 19,610	\$ 10,262
NON-CASH ACTIVITIES			
Investments in property and equipment	\$ 49,419	\$ 41,610	\$ 11,097
Exercise of a warrant		\$ 9,990	
Stock-based compensation related to			
the Facility Agreement with the Banks		\$ 5,466	
Investments in other assets	\$ 4,304	\$ 4,357	\$ 1,117

## SUPPLEMENTAL DISCLOSURE OF CASH FLOW

**INFORMATION** 

Cash paid during the year for interest \$ 11,594 \$ 3,143 \$ 866 Cash paid during the year for income taxes \$ 151 \$ 1,819 \$ 1,090

See notes to consolidated financial statements.

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#### TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(dollars in thousands, except share data and per share data)

#### NOTE 1 — DESCRIPTION OF BUSINESS AND GENERAL

#### A.Description of Business

Tower Semiconductor Ltd. (the "Company"), incorporated in Israel, commenced operations in March 1993. The Company is an independent "wafer" manufacturer of semiconductor integrated circuits on silicon wafers in geometries from 1.0 to 0.35 micron on 150 millimeters wafers. As a foundry, the Company manufactures wafers using its advanced technological capabilities and the proprietary integrated circuit designs of its customers. In addition, the Company also offers certain integrated circuit design services.

The industry in which the Company operates is characterized by wide fluctuations in supply and demand. Such industry is also characterized by the complexity and sensitivity of the manufacturing process, by high levels of fixed costs, and by the need for constant improvements in production technology.

The Company's Ordinary Shares are traded on the NASDAQ National Market since October 1994; since January 2001 they are also traded on the Tel Aviv Stock Exchange.

#### **B.**Establishment of New Fabrication Facility

In January 2001, the Company's Board of Directors approved the establishment of a new wafer fabrication facility in Israel ("Fab 2"), at an expected cost of approximately \$1,500,000. Fab 2 is designated to manufacture semiconductor integrated circuits on silicon wafers in geometries of 0.18 micron and below on 200 millimeters wafers. The Company entered into several related agreements and arrangements in connection with Fab 2, including agreements and other arrangements with technology and Wafer Partners, equity investors, the Company's Banks, the government of Israel and others to provide an aggregate of \$1,146,000 of financing Fab 2. The Fab 2 project is a complex undertaking, which entails substantial risks and uncertainties. For further details concerning such agreements, risks and uncertainties, see Note 13A.

## C.Use of Estimates in Preparation of Financial Statements

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements, and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates.

#### NOTE 2 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The Company's consolidated financial statements are presented in accordance with generally accepted accounting principles ("GAAP") in Israel. See Note 20 for the material differences between GAAP in Israel and in the United States of America.

#### A.Principles of Consolidation

The Company's financial statements include the financial statements of the Company and its wholly owned marketing subsidiary in the United States of America, after elimination of material inter-company transactions and balances.

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#### TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(dollars in thousands, except share data and per share data)

## NOTE 2 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### B.Cash and Cash Equivalents

Cash and cash equivalents consist of deposits in banks and short-term investments (primarily time deposits and certificates of deposit) with original maturities of three months or less.

#### C.Allowance for Doubtful Accounts

The allowance for doubtful accounts is computed on the specific identification basis for accounts whose collectibility, in management's estimation, is uncertain.

#### **D.Inventories**

Inventories are stated at the lower of cost or market. Cost is determined for raw materials, spare parts and supplies on the basis of moving average cost per unit. Cost is determined for work in process and finished goods on the basis of actual production cost.

#### **E.Long-Term Investments**

Long-term investments in other entities, over whose operating and financial policies the Company does not have the ability to exercise significant influence, are presented at cost.

#### F.Property and Equipment

(1)Property and equipment are presented at cost, including interest and other capitalizable costs. Capitalizable costs include only incremental direct costs that are identifiable with and related to the property and equipment and are incurred prior to its initial operation. Directly identifiable costs include incremental direct costs associated with acquiring, constructing, establishing and installing property and equipment (including as such performed by the Company); and costs directly related to preproduction test runs of property and equipment that are necessary to get it ready for its intended use. Those costs include payroll and payroll-related costs of employees who devote time and dedicated solely to the acquiring, constructing, establishing and installing property and equipment. Allocation of capitalizable direct costs is based on management's estimates and methodologies including time sheet inputs.

Cost is presented net of investment grants received or receivable, and less accumulated depreciation and amortization. The accrual for grants receivable is determined based on qualified investments made during the reporting period,

provided that the primarily criteria for entitlement have been met. Depreciation is calculated based on the straight-line method over the estimated economic lives of the assets or terms of the related leases, as follows:

Prepaid perpetual land lease and buildings 14-25 years
Machinery and equipment 5 years
Transportation vehicles 7 years

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#### TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued) (dollars in thousands, except share data and per share data)

#### NOTE 2 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

## F.Property and Equipment (Continued)

(2)Management reviews long-lived assets on a periodic basis, as well as when such a review is required based upon relevant circumstances, to determine, based on estimated future cash flows, whether events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. If an asset is considered to be impaired, an impairment charge is recognized for the amount by which the carrying amount of the asset exceeds its fair value based on discounted expected cash flows.

#### **G.Other Assets**

The cost of Fab 2 technologies includes internal costs, mainly payroll-related costs of employees designated for integrating the technologies in the Company's facilities, and direct costs associated with implementing the technologies until the technologies are ready for their intended use. The costs in relation to Fab 2 technologies shall be amortized over the expected estimated economic life of the technologies. Amortization shall phase in commencing on the dates on which each of the Fab 2 manufacturing lines is ready for use, and will be based on the straight-line method over a four-year period.

Prepaid finance expenses included in other assets in relation to funding the establishment of Fab 2, are amortized over the lives of the borrowings based on the repayment schedule of such funding (in general, 6 years). During the establishment period of Fab 2, amortized finance expenses are capitalized to property and equipment. Commencing on the date on which Fab 2 is ready for its intended use, or the date on which any other property and equipment is ready for its intended use (given this date in relation to such property and equipment is subsequent to the operation date of Fab 2), the deferred finance expenses are amortized to the statement of operations.

Impairment examinations and recognition are performed and determined based on the accounting policy outlined in F(2) above.

### H.Convertible Debentures

Convertible debentures, the conversion of which is not anticipated as of the balance-sheet date, are presented as long-term liabilities based on their terms as of such date.

#### I.Income Taxes

The Company records deferred income taxes to reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and for tax purposes. Deferred taxes are computed based on the tax rates anticipated to be in effect (under applicable law at the time the financial statements are prepared) when the deferred taxes are expected to be paid or realized.

Deferred tax liabilities and assets are classified as current or noncurrent based on the classification of the related asset or liability for financial reporting, or according to the expected reversal dates of the specific temporary differences, if not related to an asset or liability for financial reporting.

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#### TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(dollars in thousands, except share data and per share data)

### NOTE 2 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### I.Income Taxes (Continued)

Deferred tax liabilities are recognized for temporary differences that will result in taxable amounts in future years. Deferred tax assets are recognized for temporary differences which will result in deductible amounts in future years and for carryforwards. A valuation allowance against such deferred tax asset is recognized if it is more likely than not that some portion or all of the deferred tax asset will not be realized.

## J.Revenue Recognition

Revenues are recognized upon shipment or as services are rendered when title has been transferred, collectibility is reasonably assured and acceptance provisions criteria are satisfied, based on performing electronic, functional and quality tests on the products prior to shipment and customer on-site testing. Such testing reliably demonstrates that the products meet all of the specified criteria prior to formal customer acceptance, and that product performance upon customer on-site testing can reasonably be expected to conform to the specified acceptance provisions. An accrual for estimated returns, computed primarily on the basis of historical experience, is recorded at the time when revenues are recognized.

#### K.Research and Development

Research and development costs are charged to operations as incurred. Amounts received or receivable from the government of Israel and others, as participation in research and development programs, are offset against research and development costs. The accrual for grants receivable is determined based on the terms of the programs, provided that the criteria for entitlement have been met.

## L.Loss per Ordinary Share

Basic loss per ordinary share is calculated based on the weighted average number of ordinary shares outstanding for each period presented, including retroactive effect for the beginning of each period of shares issued upon exercise of share options and upon conversion into shares of convertible debentures during such period, and give effect to shares issuable from options whose exercise is probable and to shares issuable from convertible debentures whose conversion is probable based on specific calculations. The difference between loss for the year and loss used to compute loss per share is due to the inclusion of imputed interest income on the exercise price of options exercised during the year and

of in-the-money options, as required under Israeli GAAP. See Note 20I for disclosure of loss per share data in accordance with U.S. GAAP.

#### M.Derivative Financial Instruments

The Company, from time to time, enters into foreign exchange agreements (primarily forward contracts and options) as a hedge against non-dollar equipment purchase and other firm commitments. Gains and losses on such agreements through the date that the equipment is received or the commitment is realized are deferred and capitalized to the cost of equipment, while gains and losses subsequent thereto, through the date of actual payment of the liability, are included in financing income (expense), net.

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#### TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(dollars in thousands, except share data and per share data)

#### NOTE 2 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### M.Derivative Financial Instruments (Continued)

In addition, the Company, from time to time, enters into agreements to hedge interest rate exposure on long-term loans. Gains and losses on such agreements are recognized on a current basis in accordance with the terms of these agreements, and expensed or capitalized as appropriate based on the circumstances.

See Note 20C for disclosure of the derivative financial instruments in accordance with U.S. GAAP.

## N.Functional Currency and Transaction Gains and Losses

The currency of the primary economic environment in which the Company conducts its operations is the U.S. dollar ("dollar"). Accordingly, the Company uses the dollar as its functional and reporting currency. Financing expenses, net in 2002 reflected net foreign currency transaction loss of \$1,509 (in 2001 a loss of \$263 and in 2000 a gain of \$31).

#### O.Stock-Based Compensation

The Company accounts for employee stock-based compensation in accordance with Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB 25") and authoritative interpretations thereof. Accordingly, the Company accounts for share options granted to employees and directors based on the intrinsic value of the options on the measurement date. The compensation cost of options without a fixed measurement date is remeasured at each balance sheet date. Deferred compensation in respect of awards with graded vesting terms is amortized to compensation expense over the relevant vesting periods. In a manner consistent with FIN 28, the vesting period over which compensation is expensed is determined, based on the straight-line method, separately for each portion of the award as if the grant were a series of awards. See Note 14B(6) for pro forma disclosures required by SFAS 123 and SFAS 148.

The Company accounts for stock-based compensation of non-employees using the fair value method in accordance with Financial Accounting Standards Board Statement No. 123, "Accounting for Stock-Based Compensation" ("SFAS 123") and EITF 96-18: Accounting for Equity Instruments That are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services. The award cost of options granted in connection with bank financing is amortized as financing expense over the terms of the loans, in a manner described in paragraph G above. The award

cost of options granted to consultants in relation to equity transactions is offset against paid-in-capital from the investments.

## P.Recent Accounting Pronouncements by the FASB

(1)Rescission and Amendments of Certain SFASs — In April 2002, the FASB issued Statement of Financial Accounting Standards No. 145 "Rescission of FASB Statements No. 4, 44 and 64, Amendment of FASB Statement No. 13 and Technical Corrections" ("SFAS 145"). SFAS 145 rescinds, amends and clarifies certain previous standards related primarily to debt extinguishments and leases. SFAS 145 eliminates the requirement that gains and losses from the extinguishments of debt be aggregated and classified as an extraordinary item.
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#### TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued) (dollars in thousands, except share data and per share data)

## NOTE 2 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

P.Recent Accounting Pronouncements by the FASB (Continued) The rescission of SFAS No. 4 is effective for fiscal years beginning after May 15, 2002. The remainder of SFAS 145 is generally effective for transactions occurring after May 15, 2002. Adoption of SFAS 145 does not have and is not expected to have any material impact on the Company's financial position and results of operations.

- (2)Accounting for Costs Associated with Exit or Disposal Activities In July 2002, the FASB issued Statement of Financial Accounting Standards No. 146, "Accounting for Costs Associated with Exit or Disposal Activities" ("SFAS 146"). SFAS 146 supersedes EITF No. 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)". SFAS 146 requires companies to recognize costs associated with exit or disposal activities when they are incurred rather than at the date of a commitment to an exit or disposal plan, as required by EITF 94-3. SFAS 146 is effective for exit or disposal activities that are initiated after December 31, 2002, with early application encouraged. Adoption of SFAS 146 is not expected to have any impact on the Company's financial position and results of operations.
- (3)Accounting for Stock-Based Compensation Transition and Disclosure an amendment of FASB Statement No. 123 In December 2002, the FASB issued Statement of Financial Accounting Standards Board No. 148, "Accounting for Stock-Based Compensation Transition and Disclosure an amendment of FASB Statement No. 123" ("SFAS 148"). SFAS 148 amends SFAS No. 123 to provide alternative methods of transition for a voluntary change to the fair value based method of accounting for stock-based employee compensation. In addition, SFAS 148 amends the disclosure requirements of SFAS 123 to require prominent disclosures in both annual and interim financial statements about the method of accounting for stock-based employee compensation and the effect of the method used on reported results. The Company has followed the prescribed format and has provided the additional disclosures required by SFAS 148 in these financial statements for the periods presented (see Note 14B(6)), and will also provide the disclosures in its quarterly reports

containing condensed financial statements for interim periods beginning with the quarterly period ending March 31, 2003.

(4)FIN 45 — In November 2002, the FASB issued FASB Interpretation No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others" ("FIN 45"). This interpretation requires elaborating on the disclosures that must be made by a guarantor in its interim and annual financial statements about its obligations under certain guarantees that it has issued. It also clarifies that a guarantor is required to recognize, at the inception of a guarantee, a liability for the fair value of the obligation undertaken in issuing the guarantee. The disclosure requirements of FIN 45 are effective for financial statements issued after December 15, 2002 and its recognition requirements are applicable for guarantees issued or modified after December 31, 2002.

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#### TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued) (dollars in thousands, except share data and per share data)

NOTE 2 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

P.Recent Accounting Pronouncements by the FASB (Continued) While the Company is currently evaluating the impact of the adoption of FIN 45 have on its financial position and results of operations, it does not expect such impact to be material.

(5)FIN 46 — In January, 2003, the FASB issued FASB Interpretation No. 46, "Consolidation of Variable Interest Entities" ("FIN 46"). This Interpretation of Accounting Research Bulletin No. 51, "Consolidated Financial Statements", addresses consolidation by enterprises of variable interest entities in which equity investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional support from other parties. FIN 46 applies immediately to variable interest entities created after January 31, 2003, and to variable interest entities in which an enterprise obtains an interest after that date. With respect to variable interest entities, if any, in which the Company holds a variable interest acquired before February 1, 2003, the guidance in FIN 46 will be in effect for the Company's financial statements beginning July 1, 2003. While the Company is currently evaluating the impact of the adoption of FIN 46 on its financial position and results of operations, it does not expect such impact to be material.

Q.Recent Accounting Pronouncements by the Israeli Accounting Standards Board In January 2003, the Israeli Accounting Standards Board issued Standard No.15, "Impairment of Assets". This Standard is the initial formal accounting pronouncement in Israel addressing the accounting treatment and presentation of impairment of assets, which establishes procedures to be implemented in order to ensure that assets are not presented in amounts exceeding their recoverable value. An asset's recoverable value is the higher of the asset's net selling price and the asset's value in use, the latter being equal to the asset's discounted expected cash flows. Prior to issuing Standard No. 15, the Company tested the recoverability of its assets based on undiscounted expected cash flows, a method that under Standard No. 15 will no longer be acceptable. Initial application of the Standard will generally be on a prospective basis. Standard No.15 is effective for financial statements for reporting periods commencing January 1, 2003 or thereafter, with early application encouraged. The adoption of the provisions of Standard No. 15 as of December 31, 2002, would not have a material effect on the Company's financial position and

results of operations as of such date.

#### R.Reclassification

Certain amounts in prior years' financial statements have been reclassified in order to conform to the 2002 presentation.

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## TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(dollars in thousands, except share data and per share data)

## NOTE 3 — OTHER RECEIVABLES

Other receivables consist of the following:

	As of December 31,		
	2002	2001	
Government of Israel – investment grants receivable	\$14,200	\$18,083	
Other government agencies	5,025	3,167	
Others	2,097	_	
	\$21.322	\$21.250	

#### NOTE 4 — INVENTORIES

Inventories consist of the following (\*):

	As of Do	ecember		
	3:	31,		
	2002	2001		
Raw materials	\$ 3,815	\$2,739		
Spare parts and supplies	3,509	3,216		
Work in process	2,860	1,673		
Finished goods	17	800		
	\$10,201	\$8,428		

<sup>(\*)</sup>Net of write-downs to net realizable value of \$307 and \$412 as of December 31, 2002 and 2001, respectively.

A.

NOTE 5 — OTHER LONG-TERM INVESTMENTS

- **Saifun** The investment in Saifun Semiconductor Ltd. ("Saifun"), an Israeli company which designs and develops memory designs, is based on an agreement between the Company and Saifun signed in October 1997. The Company's investments in Saifun as of December 31, 2002 and 2001 amounted to \$6,000, representing 11.8% and 12.3% of Saifun's share capital, respectively, (on a fully-diluted basis 10.5% and 11.1%, respectively).
- **B.Azalea** In September 2000, the Board of Directors of the Company approved the investment of \$1,100 in Azalea Microelectronics Corporation ("Azalea"), a California corporation that, inter-alia, develops and designs microelectronics modules. This investment represents 15% of Azalea's share capital as of December 31, 2002. In addition, the Company and Azalea signed a development agreement for the development by Azalea of certain modules based on the Company's technologies. Due to management's estimate, based on certain circumstances indicating that the carrying amount of the Company's investment in Azalea may not be recoverable, the Company impaired, during the third quarter of 2001, its entire investment in Azalea.
- C.Under certain provisions in force through September 30, 2003, stipulated in the Facility Agreement entered into by the Company in connection with Fab 2 (see Note 13A(4)), the Company might be obliged to dispose some or all its long-term investments. For liens, see Note 13A(4). F-13

#### TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(dollars in thousands, except share data and per share data)

#### NOTE 5 — OTHER LONG-TERM INVESTMENTS (Continued)

**D.Virage Logic Corp.** — During the year ended December 31, 2001 the Company sold all of its shareholdings in Virage Logic Corp. for an aggregate of \$11,050 and for a gain of \$9,550. Virage Logic Corp. is a Delaware corporation, which provides semiconductor companies with memory designs for systems contained on silicon chip.

NOTE 6 — PROPERTY AND EQUIPMENT, NET

#### A.Composition

	As of December 31,	
	2002	2001
Cost:		
Prepaid perpetual land lease and buildings	\$215,240	\$163,148
Machinery and equipment	440,048	320,632
Transportation vehicles	4,198	4,551
	659,486	488,331
Accumulated depreciation and amortization:		
Prepaid perpetual land lease and buildings	13,215	11,561
Machinery and equipment	151,191	134,369
Transportation vehicles	2,006	1,677