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TOWER SEMICONDUCTOR LTD  
Form 20-F  
March 02, 2004

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM 20-F  
ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF  
THE SECURITIES EXCHANGE ACT OF 1934

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2003      COMMISSION FILE NO. 0-24790

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TOWER SEMICONDUCTOR LTD.  
(Exact name of registrant as specified in its charter and translation of  
registrant's name into English)

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ISRAEL  
(Jurisdiction of incorporation or organization)

RAMAT GAVRIEL INDUSTRIAL PARK  
P.O. BOX 619, MIGDAL HAEMEK, ISRAEL 23105  
(Address of principal executive offices)

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SECURITIES REGISTERED OR TO BE REGISTERED PURSUANT TO SECTION 12(B) OF THE ACT:

None

SECURITIES REGISTERED OR TO BE REGISTERED PURSUANT TO SECTION 12(G) OF THE ACT:

ORDINARY SHARES, PAR VALUE NEW ISRAELI SHEKELS 1.00 PER SHARE  
(Title of Class)  
Warrants  
(Title of Class)

SECURITIES FOR WHICH THERE IS A REPORTING OBLIGATION PURSUANT TO  
SECTION 15(D) OF THE ACT:

None

Indicate the number of outstanding shares of each of the issuer's classes  
of capital or common stock as of the close of the period covered by the annual  
report:

51,696,097 Ordinary Shares

Indicate by check mark whether the registrant (1) has filed all reports  
required to be filed by Section 13 or 15(d) of the Securities Exchange Act of  
1934 during the preceding 12 months (or for such shorter period that the  
registrant was required to file such reports), and (2) has been subject to such  
filing requirements for the past 90 days:

Yes       No

Indicate by check mark which financial statement item the registrant has  
elected to follow:

Item 17       Item 18

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This annual report on Form 20-F includes certain "forward-looking" statements within the meaning of Section 21E of the Securities Exchange Act of 1934. The use of the words "projects," "expects," "may," "plans" or "intends," or words of similar import, identifies a statement as "forward-looking." There can be no assurance, however, that actual results will not differ materially from our expectations or projections. Factors that could cause actual results to differ from our expectations or projections include the risks and uncertainties relating to our business described in this annual report at "Item 3. Risk Factors."

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We have prepared our consolidated financial statements in United States dollars and in accordance with accounting principles generally accepted in Israel ("Israeli GAAP"). Israeli GAAP varies in certain significant respects from accounting principles generally accepted in the United States of America ("U.S. GAAP"). The effect of the application of the latter on the financial position and results of operations as of the dates and for the years presented herein is summarized in Note 20 to our consolidated financial statements included herein. All references herein to "dollars" or "\$" are to United States dollars, and all references to "Shekels" or "NIS" are to New Israeli Shekels.

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Manufacturing capacity refers to installed equipment capacity in our facilities and is a function of the process technology and product mix being manufactured because certain processes require more processing steps than others. All information herein 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 herein 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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References to "Israel Corporation" or "Israel Corp." include its wholly-owned subsidiary Israel Corporation Technologies (ICTech) Ltd. ("ICTech").

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microFLASH(R) is a registered trademark of Tower and N-ROM(TM) is a trademark of Saifun Semiconductor Ltd.

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PART I.

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

SELECTED FINANCIAL DATA

This section presents our selected historical financial data. You should read carefully the financial statements included in this annual report, 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, 2003, 2002 and 2001, and balance sheet data as of December 31, 2003 and 2002 from the audited financial statements in this annual report. Those financial statements were prepared in accordance with Israeli GAAP and audited by Brightman Almagor & Co., a member firm of Deloitte Touche Tohmatsu, independent auditors. We derived the statement of operations data for the years ended December 31, 2000 and 1999 and the balance sheet data as of December 31, 2001, 2000 and 1999 from our audited financial statements that are not included in this annual report, which have been prepared in accordance with Israel GAAP.

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Statements of operations and selected operations data in accordance with US GAAP would not have materially differed from respective data in accordance with Israel GAAP. Other than as indicated below, balance sheet data in accordance with US GAAP would not have materially differed from respective data in accordance with Israel GAAP. Our management believes that the 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.

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	Year Ended December 31,			
	2003	2002	2001	2000
<b>STATEMENT OF OPERATIONS DATA:</b>				
Sales	\$ 61,368	\$ 51,801	\$ 52,372	\$ 104,775
Cost of sales	122,395	67,022	76,733	88,787
Gross profit (loss)	(61,027)	(15,221)	(24,361)	15,988
Research and development	20,709	17,031	9,556	8,965
Marketing, general and administrative	22,615	17,091	14,489	11,428
Operating loss	(104,351)	(49,343)	(48,406)	(4,405)
Financing income (expense), net	(9,826)	(2,104)	1,465	1,394
Other income (expense), net	(84)	45	8,419	(478)
Loss before income tax benefit (expense)	(114,261)	(51,402)	(38,522)	(3,489)
Income tax benefit (expense)	--	--	--	(500)
Loss for the period	\$ (114,261)	\$ (51,402)	\$ (38,522)	\$ (3,989)
Basic loss per ordinary share	\$ (2.40)	\$ (1.63)	\$ (1.92)	\$ (0.26)
<b>OTHER FINANCIAL DATA:</b>				
Depreciation and amortization	\$ 54,611	\$ 18,821	\$ 21,721	\$ 25,917
Capital expenditures before Investment Center grants	164,187	243,431	364,347	79,060

	AS OF DECEMBER 31		
	2003	2002	2001
<b>SELECTED BALANCE SHEET DATA IN ACCORDANCE WITH ISRAEL GAAP:</b>			
Cash and cash equivalents, including short-term deposits and designated cash	\$ 56,490	\$ 69,695	\$ 33,202
Working capital	50,492	21,927	(16,335)
Total assets	788,335	716,261	472,054
Long-term debt	431,000	253,000	115,000

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Convertible debentures	25,783	24,121	--
Long-term liabilities in respect of customers' advances	46,347	47,246	17,910
Shareholders' equity	229,457	298,334	252,805
Weighted average number of ordinary shares outstanding (in thousands)	47,608	31,523	20,020
Number of shares issued and outstanding, as of December 31, (*) (in thousands)	51,696	43,436	24,997

(\*) Net of 1,300,000 Ordinary Shares held by the Company as of such dates.

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	AS OF DECEMBER 31,			
	2003	2002	2001	2000
	-----	-----	-----	-----
SELECTED BALANCE SHEET DATA IN ACCORDANCE WITH US GAAP:				
TOTAL ASSETS				
According to Israel GAAP	\$ 788,335	\$ 716,261	\$ 472,054	\$ 179,2
The effect of:				
Presentation of long-term liabilities in respect of employees	14,607	12,368	10,334	7,9
Hedging activities	(5,947)	(5,727)	(4,564)	
Sale of securities (*)	(196)	(196)	--	
Presentation of securities	--	--	--	12,5
	-----	-----	-----	-----
According to US GAAP	796,799	\$ 722,706	\$ 477,824	\$ 199,8
	=====	=====	=====	=====
SHAREHOLDERS' EQUITY				
According to Israel GAAP	\$ 229,457	\$ 298,334	\$ 252,805	\$ 134,6
The effect of:				
Hedging activities	(15,867)	(17,807)	(8,169)	
Proceeds on account of share capital	(16,428)	--	--	
Sale of securities (**)	2,363	2,363	--	
Presentation of securities	--	--	--	12,5
	-----	-----	-----	-----
According to US GAAP	\$ 199,525	\$ 282,890	\$ 244,636	\$ 147,2
	=====	=====	=====	=====

(\*\*) The allocation of a portion of the total proceeds from the sale of securities issued in January 2002.

RISK FACTORS

This annual report and statements that we may make from time to time may contain forward-looking information. There can be no assurance that actual results will not differ materially from our expectations, statements or projections. Factors that could cause actual results to differ from our expectations, statements or projections include the risks and uncertainties relating to our business described below.

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 are experiencing 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 approximately an additional \$280 million to finance the total cost of Fab 2 until we reach full capacity. 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. Although the semiconductor industry appears to be recovering and our sales in 2003 improved in comparison with 2002, 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 FORESEEABLE 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. Fab 1 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

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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 and revenues.

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 December 31, 2003, we had received approximately \$118 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, unless an exempting amendment to this law is adopted by the Israeli parliament. 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 tax benefits and in the Investment Center requiring us to repay all or a portion of previous grants, which total \$118 million as of December 31, 2003. 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 year ended December 31, 2003, approximately 55% of our business was generated by three customers, National Semiconductor (24%), SanDisk Corporation (20%) and Motorola (11%). We expect to continue to receive a significant portion of our revenue from a limited number of customers, with SanDisk, our largest Fab 2 customer, accounting for a significant portion of the revenues we expect to generate from Fab 2 in 2004. In 2003, SanDisk was instrumental in



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ramping up our business and accounted for approximately 80% of our Fab 2 revenues. While we currently expect that SanDisk will continue to be a significant customer of Fab 2, the percentage of Fab 2 revenues represented by sales to SanDisk is expected to decrease as additional customers commence or increase their purchase orders following the qualification of their products in Fab 2. Loss or cancellation of business from, or decreases in, the sales volume or sales prices to these customers including SanDisk 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.

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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. During the ramp-up of Fab 2, our capacity commitments are limited to approximately 50% of our Fab 2 capacity. 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. In addition, in connection with their investments in the Fab 2 project, our wafer partners have been issued credits which may be used to reduce the cash amounts to be paid by them when paying for wafers manufactured in Fab 2. Our major wafer partners have recently agreed to defer the use of their credits until 2007.

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:

- o rapid technological developments;
- o evolving industry standards;
- o changes in customer requirements;
- o frequent new product introductions and enhancements; and
- o short product life cycles with declining prices as products mature.

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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 are in the process of transferring the 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 approximately ten independent dedicated foundries, all of which are located in Asia-Pacific, including new foundries based in Taiwan, China, Korea and Malaysia, and with over 20 integrated semiconductor and end-product manufacturers that allocate a portion of their manufacturing capacity to foundry operations. The foundries with which we compete benefit from their close proximity to other companies involved in the design and manufacture of ICs. Many of our competitors have one or more of the following competitive advantages over us:

- o greater manufacturing capacity;
- o multiple and more advanced manufacturing facilities;
- o more advanced technological capabilities;
- o a more diverse and established customer base;
- o greater financial, marketing, distribution and other resources; and/or
- o 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 December 31, 2003, we had \$431 million of bank debt. Our current and future indebtedness could have significant negative consequences, including:

- o requiring the dedication of a substantial portion of our expected cash flow from operations to service our indebtedness;
- o increasing our vulnerability to general adverse economic and industry conditions;
- o limiting our ability to obtain additional financing;
- o limiting our flexibility in planning for, or reacting to, changes in our business and the industry in which we compete;
- o placing us at competitive disadvantage to less leveraged competitors and competitors that have better access to capital resources; and
- o 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, under which we have drawn down \$431 million as of December 31, 2003, 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, and 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 an entity will be subject to limitations on the amount of bank financing available to it if such entity is included within a group of borrowers, to which the amount of debt financing that has been extended from such bank amounts to 30% of such bank's capital, or is a member of one of the bank's six largest borrowers or groups of borrowers to which, collectively, the amount of debt financing that has been extended from a bank amounts to 150% of such bank's capital (gradually reduced to 135% between April 2005 and June 2006). Should our banks exceed these limitations, they may limit our ability to draw on our remaining Fab 2 bank facility (\$69 million) and may require us to return some or all of our outstanding borrowings (which were \$431 million as of December 31, 2003), each of which may have a material adverse effect on our business, financial condition and results of operations. The directive provides that a bank may request that the Israel Supervisor of Banks exempt certain entities from the scope of the definition of a group of borrowers. Since we do not know whether the directive will impact us, we do not currently intend to request that our banks seek an exemption on our behalf from the Israel Supervisor of Banks. Should we decide to make such a request of our banks, there can be no assurance that our banks would agree to request an exemption from the Israel Supervisor of Banks on our behalf or that the Israel Supervisor of Banks would grant an exemption, if requested.

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

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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 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 New Israeli Shekels, or 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.

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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.

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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 OR DEFEND OUR INTELLECTUAL PROPERTY RIGHTS COULD HARM OUR BUSINESS.

Our ability to compete successfully depends on our ability to operate without infringing on the proprietary rights of others and defend our intellectual property rights. Because of the complexity of the technologies used and the multitude of patents, copyrights and other overlapping intellectual property rights, it is often difficult for semiconductor companies to determine infringement. Therefore, the semiconductor industry is characterized by frequent litigation regarding patent, trade secret and other intellectual property rights. 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 because of the nature of the industry, we may continue to receive such claims in the future. We and some of our customers have recently received a notice from a technology company claiming that we and our customers 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, and we entered into a license agreement with this company. All other 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. In the event any third party were to assert infringement claims against us or our customers, we may have to consider alternatives including, but not limited to:

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- o negotiating cross-license agreements;
- o seeking to acquire licenses to the allegedly infringed patents, which may not be available on commercially reasonable terms, if at all;
- o discontinuing using certain process technologies, architectures, or designs, which could cause us to stop manufacturing certain integrated circuits if we were unable to design around the allegedly infringed patents;
- o fighting the matter in court and paying substantial monetary damages in the event we were to lose; or
- o seeking to develop non-infringing technologies, which may not be

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feasible.

Any one or several of these developments could place substantial financial and administrative burdens on us and hinder our business. Litigation, which could result in substantial costs to us and diversion of our resources, may also be necessary to enforce our patents or other intellectual property rights or to defend us or our customers against claimed infringement of the rights of others. If we fail to obtain certain licenses and if litigation relating to alleged patent infringement or other intellectual property matters occurs, it could prevent us from manufacturing particular products or applying particular technologies, which could reduce our opportunities to generate revenues.

As of December 31, 2003, we held 48 patents worldwide. We intend to continue to file patent applications when appropriate to protect our proprietary technologies. The process of seeking patent protection may take a long time and be expensive. We cannot assure you that patents will be issued from pending or future applications or that, if patents are issued, they will not be challenged, invalidated or circumvented or that the rights granted under the patents will provide us with meaningful protection or any commercial advantage. In addition, we cannot assure you that other countries in which we market our services will protect our intellectual property rights to the same extent as the United States. Further, we cannot assure you that we will at all times enforce our patents or other intellectual property rights or that the rights granted under our patents will provide us with a commercial advantage, which could reduce our opportunities to generate revenues.

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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.

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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.

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 actual level of Fab 1 revenues and employees for 2003 and the expected level of revenues and employees for 2004, we may be required to repay the Investment Center up to approximately \$2.5 million.

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WE ARE SUBJECT TO RISKS RELATED TO OUR INTERNATIONAL OPERATIONS.

In 2003 and 2002, we made substantial sales to customers located in Asia-Pacific and in Europe. Because of our international operations, we are vulnerable to the following risks:

- o we price our products primarily in U.S. Dollars. If the Euro, Yen and other currencies weaken relative to the U.S. Dollar, our products may be relatively more expensive in these regions, which could result in a decrease in our sales;
- o the need to comply with foreign government regulation;
- o general geopolitical risks such as political and economic instability, potential hostilities and changes in diplomatic and trade relationships;
- o natural disasters affecting the countries in which we conduct our business, such as the earthquakes experienced in China, Japan and Taiwan;

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- o reduced sales to our customers or interruption in our manufacturing processes in Asia Pacific that may arise from regional issues in Asia;
- o imposition of regulatory requirements, tariffs, import and export restrictions and other barriers and restrictions;
- o adverse tax rules and regulations;
- o weak protection of our intellectual property rights; and
- o delays in product shipments due to local customs restrictions.

### RISKS RELATED TO OUR ORDINARY SHARES

#### OUR STOCK PRICE MAY BE VOLATILE IN THE FUTURE.

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.

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ISSUANCE OF ADDITIONAL SHARES PURSUANT TO FAB 2 FINANCING ARRANGEMENTS WILL DILUTE THE INTEREST OF OUR SHAREHOLDERS; WE HAVE ALSO ISSUED WARRANTS TO OUR BANKS, THE FAB 2 BUILDING CONTRACTOR AND ONE OF OUR SHAREHOLDERS AND OPTIONS TO OUR EMPLOYEES THAT ARE EXERCISABLE INTO OUR ORDINARY SHARES BELOW OUR CURRENT MARKET PRICE.

In connection with the Fab 2 project, we have issued as of February 21, 2004 53,288,624 ordinary shares to our wafer and equity partners and other shareholders. In January 2001, we issued warrants to our banks exercisable into 400,000 ordinary shares with an exercise price of \$6.20. In December 2003, we issued to our banks and to one of our shareholders warrants exercisable into 896,596 and 58,906 ordinary shares, respectively, with an exercise price of \$6.17. Up to approximately 8.6 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 debenture holders and our Fab 2 contractor.

In addition, as of December 31, 2003, we had outstanding employee options to purchase up to 6.8 million shares, of which 3.7 million shares have an exercise price below \$7.00. 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. For example, we have agreed that our wafer partners may elect to convert, on a quarterly basis through 2006, wafer credits we have issued them which may be used to reduce the cash payments to be paid by them when paying for wafers manufactured in Fab 2 into our ordinary shares, based on the average trading price of our ordinary shares during the 15 consecutive



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trading days preceding the relevant quarter. If our major wafer partners purchase an amount of wafers which would otherwise result in their using the full amount of credits available to them and they elect to convert all of these credits into ordinary shares, we will issue them an aggregate of 8.3 million shares, assuming the average trading price of our ordinary shares during the 15 consecutive trading days preceding the last relevant quarter is \$5.00; if the average trading price of our ordinary shares is \$10.00, we will issue an aggregate of 4.2 million shares. Issuances of these shares 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 65,582,383 outstanding ordinary shares as of February 29, 2004, 23,434,532 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, 67,046 and 41,905 shares held by non-affiliates will be eligible for sale under Rule 144(k) by May 2004, December 2004 and January 2005, respectively.

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In addition, certain of our affiliates (Israel Corporation Technologies - ICTech, SanDisk, Alliance Semiconductor, and Macronix International) hold 40,884,539 of our shares, of which 9,766,526 are freely tradable and 20,700,069 are currently eligible for sale subject to the time, volume and manner of sale limitations of Rule 144. An additional 4,425,076, 838,082, 2,849,905 and 2,304,881 shares held by these affiliates will be eligible for sale under Rule 144 by May 2004, August 2004, December 2004 and January 2005, respectively, and 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 and additional shareholders and warrant holders, as well as our directors and officers, have agreed under written "lock-up" agreements that, for a period of 90-180 days from the date of the effectiveness of the January 2004 prospectus, they will not sell their shares. Shares purchased by OTPP in 2002 are registered pursuant to an effective shelf registration statement. 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 approximately 65% 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

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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.

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### 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 2004. 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.

#### 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. Most male Israeli citizens,

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including our employees, are subject to compulsory military service through middle age. 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.

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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 and 2004, 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 May 2004. We are currently in the process of implementing the 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 pay penalties and if we cannot implement the conditions for the receipt of a final business license, we may be required to modify or 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, 2004. 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 any or all of the facilities for this period each week, our financial results and business will be harmed.

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IF WE ARE CONSIDERED TO BE A PASSIVE FOREIGN INVESTMENT COMPANY, EITHER

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PRESENTLY OR IN THE FUTURE, U.S. HOLDERS WILL BE SUBJECT TO ADVERSE U.S. TAX CONSEQUENCES.

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. 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," or QEF, or a "mark to market" election, "excess distributions" to a U.S. Holder, and any gain recognized by a U.S. Holder on a disposition or our ordinary shares, would be taxed in an unfavorable way. Among other consequences, our dividends would be taxed at the regular rates applicable to ordinary income, rather than the 15% maximum rate applicable to certain dividends received by an individual from a qualified foreign corporation. 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. In addition, under the applicable statutory and regulatory provisions, it is unclear whether we would be permitted to use a gross loss from sales (sales less cost of goods sold) to offset our passive income in the calculation of gross income. In light of the uncertainties described above, we have not obtained an opinion of counsel with respect to our PFIC status and no assurance can be given that we will not be a PFIC in any year. If we determine that we have become a PFIC, we will then notify our U.S. Holders and provide them with the information necessary to comply with the QEF rules. If the IRS determines that we are a PFIC for a year with respect to which we have determined that we were not a PFIC, however, it might be too late for a U.S. Holder to make a timely QEF election, unless the U.S. Holder qualifies under the applicable Treasury regulations to make a retroactive (late) election. 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.

IT MAY BE DIFFICULT TO ENFORCE A U.S. JUDGMENT AGAINST US, OUR OFFICERS AND DIRECTORS AND SOME OF THE EXPERTS NAMED IN THIS ANNUAL REPORT 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 majority 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, in U.S. or Israeli courts based on the civil liability provisions of the U.S. Federal securities laws. Additionally, it may be difficult for you to enforce civil liabilities under U.S. Federal Securities laws in original actions instituted in Israel.

### ITEM 4. INFORMATION ON THE COMPANY

#### A. History and Development of the Company

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We are a pure-play independent wafer foundry dedicated to the manufacture of semiconductors. Pure-play foundries do not offer any products of their own, but focus on producing integrated circuits, or ICs, based on the design specifications of their customers. We manufacture semiconductors using advanced production processes for our customers primarily based on third party designs and our own proprietary designs. We currently manufacture 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 Fab 1 facility 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 since the second quarter of 2002.

We have 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. Production capacity at the end of December 2003 was 8,500 wafer starts per month. We currently expect to have production capacity ranging between 13,000 and 15,000 wafer starts per month by the end of 2004. 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.

On December 30, 2003, we signed a memorandum of understanding with Siliconix incorporated, an 80.4% owned subsidiary of Vishay Intertechnology, Inc., for a long-term manufacturing and supply arrangement between the parties. Pursuant to the terms of the memorandum of understanding, Siliconix will place with us orders valued at approximately \$200 million for the purchase of semiconductor wafers to be manufactured at our Fab 1 facility over a seven to

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ten year period, of which approximately \$53 million is guaranteed and will be delivered over the three year period starting at the first anniversary of the definitive agreement. Siliconix will advance to us \$20 million to be used for the purchase of additional equipment required to satisfy Siliconix's orders, which will be credited towards the purchase price of the wafers. The transaction is subject to the approval of both companies' boards of directors, our lending banks and the Israeli Investment Center and the negotiation of definitive documentation. A definitive agreement is expected to be signed during the first quarter of 2004. We can offer no assurance that we will receive the necessary approvals for the transaction from either company's board of directors, our lending banks or the Israeli Investment Center or that, even if such approvals are obtained, a definitive agreement will be reached

In January 2004, we completed an underwritten public offering of 11 million of our ordinary shares at a price to the public of \$7.00 per share. Pursuant to this offering, our underwriters partially exercised their over-allotment option and purchased 444,500 of our ordinary shares at a price of \$7.00 per share. The underwritten public offering, including the partial exercise of the over-allotment option, resulted in net proceeds of approximately \$75.2 million.

Our legal and commercial name is Tower Semiconductor Ltd. We were incorporated under the laws of Israel. Our manufacturing facilities and executive offices are located in the Migdal Haemek Industrial Park, Post Office Box 619, Migdal Haemek, 23105 Israel, and our telephone number is 972-4-650-6611. Our worldwide web site is located at <http://www.towersemi.com>. Information on our web site is not incorporated by reference in this annual report.

### B. Business Overview

#### 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 integrated circuits, or 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

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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.

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.

The consumer sector 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.

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.

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These trends have led to the rapid growth in demand in recent years for advanced semiconductor manufacturing services provided by independent foundries.

### SPECIALIZED TECHNOLOGIES

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 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.

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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.

We derived approximately 43% of our revenues for the year ended December 31, 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, machine vision medical equipment and automotive sensors. While CMOS image sensors for advanced optical applications are an emerging technology, we believe that they are 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.

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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 select foundries that manufacture CMOS image sensors and, as such, believe that we have developed leading market position.

### EMBEDDED FLASH



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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(TM). 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, 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.

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### MIXED SIGNAL

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

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several strategic initiatives. In 1998, Motorola transferred its 0.6- and 0.8-micron analog and mixed-signal processes to our Fab 1 facility. 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.

### 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 and Israel. 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.

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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:

- o technical evaluation;
- o product design to our specifications including integration of third party intellectual property;
- o photomask design specification;
- o silicon prototyping;
- o assembly and test;
- o validation and qualification; and
- o 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 year ended December 31, 2003, National Semiconductor, SanDisk and Motorola contributed 24%, 20%, 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. In 2004, we expect that SanDisk, which currently is our largest customer in Fab 2, will account for a significant portion of our Fab 2 revenues. As foundry utilization rates peak with the industry recovery, we expect to attract additional customers as available capacity decreases at

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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 31%, 38% and 27% in the years ended December 31, 2001, 2002 and 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. 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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	Year ended December 31,		
	2003	2002	2001
United States	73%	62%	69%
Asia-Pacific	10	25	18
Europe	15	11	10
Israel	2	2	3
Total	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 "Item 5 - Management's Discussion and Analysis of Financial Condition and Results of Operations - Fab 2 Agreements"). Some of our primary customers are also our shareholders.

### COMPETITION

The global semiconductor foundry industry is highly competitive. We compete with more than 10 independent dedicated foundries, including Taiwan Semiconductor Manufacturing Corporation, United Microelectronics and 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 over 20 IDMs and end-product manufacturers that produce ICs for their own use and/or allocate a portion of their manufacturing capacity to foundry operations. The foundries with which we compete are located in Asia-Pacific and benefit from their close proximity to other companies involved in the design and manufacture of ICs. We believe that the principal elements of competition in the wafer foundry market are:

- o technical competence;
- o production quality;

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

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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 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

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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.

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### 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 currently 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

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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. We are currently introducing into Fab 2 the 0.18 embedded flash that was jointly developed with Matsushita in their facilities in Japan.

**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 in Fab 2 with our 0.18-micron process (such as high and medium poly-resistors and MIM capacitors) and are working to develop more features.

### 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 CMOS process technologies that we primarily license and transfer from third parties, we develop at our customers' request or in cooperation with our customers; and internally develop utilizing intellectual property licensed from third parties.

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The completion of the construction of Fab 2 in the third quarter of 2003 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

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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 begin prototyping in the middle of 2004 and 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 2004.

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 Office of the Chief Scientist, or OCS. Accordingly, we are subject to restrictions set forth in Israeli law which limit the ability of a company to manufacture products, or to transfer technologies outside of Israel, if such products or technologies were developed with OCS funding. Research and development expenses for the years ended December 31, 2001, 2002, 2003 were \$9.6 million, \$17.0 million and \$20.7 million, net of government participation of \$1.4 million, \$1.2 million and \$1.1 million, respectively. In addition, we have paid, as of December 31, 2003, a total of \$41.0 million to Toshiba and Motorola in connection with the transfer of process technologies for use in Fab 2.

As of December 31, 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.

### PROPRIETARY RIGHTS

### INTELLECTUAL PROPERTY AND LICENSING AGREEMENTS

Our success depends in part on our ability to obtain patents, licenses and other intellectual property rights covering our production processes. To that end, we have acquired certain patents and patent licenses and intend to continue to seek patents on our production processes. As of December 31, 2003, we held 48 patents.

We have also entered into various patent licenses and cross-licenses with other technology companies including Toshiba, Motorola, Synopsys, Artisan Components, ARM, Ceva, IMEC, Cadence Design Systems, Chipidea Microelectronics, Matsushita and Virage Logic. We may choose to renew our present licenses or to obtain additional technology licenses in the future. There can be no assurance that any such licenses could be obtained on commercially reasonable terms. In addition, we cannot assure you that other countries in which we market our services will protect our intellectual property rights to the same extent as the United States or Israel.

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.

#### CMOS PROCESS TECHNOLOGY PLATFORM

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

- o 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.
- o 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.

- o 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



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them in producing their ICs at Tower.

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

- o 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.
- o CEVA. In December 2001, we signed an agreement with Ceva for the customization of their Teak and XperTeak DSP-core for Tower's 0.18-micron manufacturing process. Under this agreement, Ceva has developed DSP macrocells, which are available for the use of our customers' SoCs from Ceva.

### 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.

- o 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. Pursuant to this agreement, we received a non-exclusive, non-transferable license to manufacture or have manufactured integrated circuits utilizing the technology licensed by IMEC. The mixed-signal offering developed pursuant to this agreement is available to our customers.

- o CHIPIDEA MICROELECTRONICS. In January 2003, we entered into a non-exclusive, perpetual, royalty-free 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. Several Chipidea cores are currently being utilized by our customers.

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- o 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.

- o 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.
- o 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.

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Our ability to compete also depends on our ability to operate without infringing the proprietary rights of others. The semiconductor industry is characterized by frequent litigation regarding patent, trade secret and other intellectual property rights. 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 because of the nature of the industry, we may continue to receive such communications in the future. We have recently received a notice from a technology company claiming that we and our customers 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, and we have currently concluded a license agreement with this technology company. All other 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. In the event any third party were to assert infringement claims against us or our customers, we may have to consider alternatives including, but not limited to:

- o negotiating cross-license agreements;
- o seeking to acquire licenses to the allegedly infringed patents, which may not be available on commercially reasonable terms, if at all;
- o discontinuing using certain process technologies, architectures, or designs, which could cause us to stop manufacturing certain

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semiconductors if we were unable to design around the allegedly infringed patents;

- o fighting the matter in court and paying substantial monetary damages in the event we were to lose; or
- o seeking to develop non-infringing technologies, which may not be feasible.

In the event that any third party causes us or any of our customers to discontinue using certain process technologies, we believe that such an outcome would not have a long-term material and adverse effect, as we could design around such technologies.

### C. ORGANIZATIONAL STRUCTURE

The legal and commercial name of our company is Tower Semiconductor Ltd. We were incorporated under the laws of the State of Israel in 1993. We have one subsidiary incorporated in the United States under the name Tower Semiconductor USA, Inc.

### D. PROPERTY, PLANTS AND EQUIPMENT

#### 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.

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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 integrated circuits 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 implementing in Fab 2 and expect to offer in the future. The overall clean room area in Fab 2 is approximately 100,000 square feet. We began volume production at Fab 2 during the third quarter of 2003. Production capacity at the end of December 2003 was 8,500 wafer starts per month, and we currently expect to have production capacity ranging between 13,000 and 15,000 wafer starts per month by the end of 2004. 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. 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 \$900 million has been expended through December 31, 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. Capital expenditures in fiscal 2003, 2002 and 2001 were approximately \$164 million, \$243 million and \$364 million, respectively, before related Investment Center grants of \$27 million, \$37 million and \$67 million, respectively.

#### 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

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approximately \$100,000. We believe that we are currently in compliance in all other material respects with applicable environmental laws and regulations.

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### ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

#### A. OPERATING RESULTS

##### 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 ANNUAL REPORT. OUR FINANCIAL STATEMENTS HAVE BEEN PREPARED IN ACCORDANCE WITH GENERALLY ACCEPTED ACCOUNTING PRINCIPLES ("GAAP") IN ISRAEL. MATERIAL DIFFERENCES BETWEEN ISRAEL GAAP AND US GAAP AS THEY RELATE TO OUR FINANCIAL STATEMENTS ARE DESCRIBED IN NOTE 20 TO OUR AUDITED ANNUAL CONSOLIDATED FINANCIAL STATEMENTS.

##### OVERVIEW

We are a pure-play independent wafer foundry dedicated to the manufacture of semiconductors. Pure-play foundries do not offer any products of their own, but focus on producing integrated circuits, or ICs based on the design specifications of their customers. 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 year ended December 31, 2003, National Semiconductor, SanDisk and Motorola contributed 24%, 20% 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. In 2004, we expect that SanDisk, currently our largest Fab 2 customer, will continue to account for a

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significant portion of our Fab 2 revenues. In 2003, SanDisk was instrumental in ramping up our business and accounted for approximately 80% of our Fab 2 revenues. While we currently expect that SanDisk will continue to be a significant customer of Fab 2, the percentage of Fab 2 revenues represented by sales to SanDisk is expected to decrease as additional customers commence or increase their purchase orders following the qualification of their products in Fab 2. 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 31%, 38% and 27% in the years ended December 31, 2001, 2002 and 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.

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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 since the second quarter of 2002.

During the third quarter of 2003, we 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. Production capacity of Fab 2 as of the end of December 2003 was 8,500 wafer starts per month, and we currently expect to have production capacity ranging between 13,000 and 15,000 wafer starts per month by the end of 2004. 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

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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 and accounting recognition of these costs may be different, which may significantly affect our financial position and results of operations. The effect, if any, under Israel GAAP and US GAAP would be similar.

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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 our production, both our customers and our personnel 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. Any changes in assumptions for determining the accrual for returns may affect mainly 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 Israel 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 Israel GAAP and US GAAP would be similar.

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 December 31, 2003 and 2002, had no effect on our financial position and results of operations as of such dates, 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

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 on our financial position or results of operations.

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 connection with our activities for financial instruments entered into at the beginning of the third quarter of 2003. Regarding the impact of adopting SFAS 150 on our financial position as of December 31, 2003, see Note 20F to the financial statements which are included in this annual report.

SAB-104. -- Revenue Recognition. In December 2003, the Securities and Exchange Commission ("SEC") issued Staff Accounting Bulletin 104 ("SAB-104") -- Revenue Recognition. This SAB revises or rescinds portions of the interpretative guidance included in Topic 13 of the codification of staff accounting bulletins in order to make this interpretive guidance consistent with current authoritative accounting guidance. The principal revisions relate to the rescission of material no longer necessary because of developments outside of the SEC in U.S. generally accepted accounting principles, and the incorporation of certain sections of the SEC's "Revenue Recognition in Financial Statements --



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Frequently Asked Questions and Answers" document into Topic 13. The adoption of SAB-104 had no impact on our financial position and results of operations.

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### RECENT ACCOUNTING PRONOUNCEMENTS UNDER ISRAEL 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 our 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 dates.

### RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with the financial statements and the related notes thereto included in this annual report. The following table sets forth certain statement of operations data as a percentage of sales for the years indicated.

	YEAR ENDED DECEMBER 31,		
	2003	2002	2001
<b>STATEMENT OF OPERATIONS DATA:</b>			
Sales	100.00%	100.0%	100.0%
Cost of sales	199.4	129.4	146.5
Gross profit	(99.4)	(29.4)	(46.5)
Research and development expenses, net	33.7	32.8	18.2
Marketing, general and administrative expenses	36.9	33.0	27.7
Operating loss	(170.0)	(95.2)	(92.4)
Financing income (expense), net	(16.1)	(4.0)	2.8
Other income	(0.1)	--	16.0
Loss	(186.2)%	(99.2)%	(73.6)%

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YEAR ENDED DECEMBER 31, 2003 COMPARED TO YEAR ENDED DECEMBER 31, 2002

SALES. Sales in the year ended December 31, 2003 increased by 18.5% to \$61.4 million from \$51.8 million in 2002. This \$9.6 million increase was attributable to a higher volume of wafer shipments, which resulted in an increase in Fab 1 sales of \$2.9 million, and a \$6.6 million increase in Fab 2 revenues. Fab 2 revenues in 2003, which derived from the sale of wafer products, were \$14.7 million, in comparison with Fab 2 revenues of \$8.1 million in 2002, all of which was attributable to our joint development agreement with Matsushita for the development of 0.18-micron embedded microFLASH technology.

COST OF SALES. Cost of sales in the year ended December 31, 2003 totaled \$122.4 million, compared with \$67.0 million in 2002. This increase was due mainly to the commencement of Fab 2 operations in the third quarter of 2003, which resulted in (i) an increase of \$37.3 million in depreciation and amortization expenses related to Fab 2 assets; and (ii) an increase of \$25.5 million attributable to the commencement of Fab 2 operations and the discontinuation of capitalization of costs that had been capitalized prior to the commencement of Fab 2 operations.

GROSS LOSS. Gross loss in the year ended December 31, 2003 was \$61.0 million compared to a gross loss of \$15.2 million in 2002. The increase in gross loss was primarily attributable to an increase of \$58.0 million in 2003 in expenses related to Fab 2 (mainly due to an increase of \$37.3 million in depreciation and amortization costs and an increase of \$11.4 million in payroll costs). This increase was offset by a moderate increase in revenues of \$9.6 million, which was primarily attributable to the commencement of production operations of Fab 2 that amounted to \$6.6 million.

RESEARCH AND DEVELOPMENT. Research and development expenses in the year ended December 31, 2003 increased to \$20.7 million from \$17.0 million in 2002. The increase was primarily due to increased research and development activities related to the technologies we licensed from Motorola and Toshiba for Fab 2. Research and development expenses are reflected net of participation grants received from the Israeli government (\$1.1 million and \$1.2 million, respectively).

MARKETING, GENERAL AND ADMINISTRATION. Marketing, general and administrative expenses in the year ended December 31, 2003 increased to \$22.6 million from \$17.1 million in 2002, primarily due to an increase of \$4.3 million associated with the expansion of our worldwide marketing and sales efforts in connection with the commencement of production in Fab 2.

OPERATING LOSS. Operating loss in the year ended December 31, 2003 was

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\$104.4 million, compared to \$49.3 million in 2002, attributable primarily to the commencement of Fab 2 operations during the third quarter of 2003. The \$55.1 million increase in the operating loss reflects the increase in gross loss of \$45.8 million, increase in research and development expenses of \$3.7 million and increase in marketing and sales, general and administrative expenses of \$5.5 million.

**FINANCING EXPENSES, NET.** Financing expenses in the year ended December 31, 2003 were \$9.8 million compared to financing expenses of \$2.1 million in 2002. This increase is mainly due to an increase of \$9.2 million in connection with our Fab 2 activities and is attributable to (i) an increase during 2003 in the total amount of long-term loans which financed the construction and equipping of Fab 2, and (ii) the discontinuation of capitalization of financing costs that had been capitalized prior to the commencement of operations of Fab 2.

**LOSS.** Our loss in the year ended December 31, 2003 was \$114.3 million, compared to \$51.4 million in 2002. This increase is primarily attributable to the increased operating loss of \$55.0 million and the increase in financing expenses, net, of \$7.7 million.

### 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 in Fab 1 as well as a reduction of 9% in the average price per wafer in Fab 1 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 micro-FLASH technology in Fab 2.

**COST OF SALES.** Cost of sales in 2002 was \$67.0 million, compared with \$76.7 million in 2001. A decrease of \$21.5 million in the cost of sales of Fab 1 was attributable to cost saving initiatives that were implemented in Fab 1, offset by fixed manufacturing costs and increased uncapitalized expenses of \$11.8 million related to the establishment of Fab 2.

**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 due to reduced gross loss in Fab 1 of \$12.9 million resulting from reduced sales and cost savings activities offset by our increased gross loss in Fab 2 of \$3.8 million, which resulted from \$10.0 million in increased uncapitalized expenses related to the establishment of Fab 2 offset by \$6.2 million in gross profits from the joint development agreement with Matsushita.

**RESEARCH AND DEVELOPMENT.** Research and development expenses in 2002 increased to \$17.0 million from \$9.6 million in 2001. The increase was 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 (\$1.2 million and \$1.4 million, respectively).

**MARKETING, GENERAL AND ADMINISTRATION.** Marketing, general and

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administrative expenses in 2002 increased to \$17.1 million from \$14.5 million in 2001 due to higher deployment for Fab 2 activities of \$2.5 million and higher marketing efforts among new and potential Fab 2 customers during 2002 amounting to \$2.7 million offset by \$2.6 million decreased sales, general and administration expenses related to Fab 1.

**OPERATING LOSS.** Operating loss in 2002 was \$49.3 million, compared to \$48.4 million in 2001. The increase was due to \$7.5 million in higher research and development expenses in connection with Fab 2, as well as \$2.6 million in higher marketing expenses, offset by \$9.1 million in lower gross loss.

**FINANCING INCOME (EXPENSES), NET.** Financing expenses in 2002 were \$2.1 million compared with \$1.5 million financing income in 2001. The majority of our financing costs in 2002 and 2001, amounting to \$11.0 million and \$2.3 million, respectively, were not included in our results of operations since they were capitalized to Fab 2 assets during the establishment of Fab 2. The capitalized financing expenses were primarily comprised of bank loans interest, amounting to \$10.6 million and \$1.5 million, respectively, as well as expenses in 2002 related to convertible debentures, amounting to \$ 1.2 million. In 2001, non-capitalized financial expenses were offset by financial income, primarily attributable to bank interest on proceeds from our Fab 2 investors, resulting in net financial income, while 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 with respect to existing deferred tax liabilities; therefore, we 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 Fab 2 operating loss of \$19.4 million, comprised of increased non-capitalized expenses, research, development and marketing expenses, and offset by the \$9.5 million capital gain generated from the sale of our holdings in Virage Logic.

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### IMPACT OF INFLATION AND CURRENCY FLUCTUATIONS

The dollar cost of our operations in Israel is influenced by the timing of any change in the rate of inflation in Israel and the extent to which such change is not offset by the change in valuation of the NIS in relation to the dollar. During 2003, the dollar was devalued against the NIS by 7.6%, and the consumer price index in Israel decreased by 1.9%. During 2002, the NIS was devalued against the dollar by 7.3%, while the consumer price index in Israel increased by 6.5%.

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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.

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 under our Fab 2 credit facility, which comprise the majority of our long-term liabilities, provide for interest based on a floating Libor rate, and we are therefore subject to exposure to interest rate fluctuations. 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, particularly our financing expenses.

The quantitative and qualitative disclosures about market risk are in Item 11 of this annual report.

### B. LIQUIDITY AND CAPITAL RESOURCES

At December 31, 2003, we had an aggregate of \$56.5 million in cash, cash equivalents, and short-term interest-bearing deposits, of which \$44.0 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. In addition, as of December 31, 2003, we had \$4.8 million (as of December 31, 2002, \$11.9 million) in long-term interest-bearing deposits, which were contractually restricted for Fab 2 use only.

During the year ended December 31, 2003, we generated cash from the following sources: \$174.0 million from bank loans, net of \$13.0 million in repayments; \$24.4 million in net proceeds from our issuance of ordinary shares and \$16.4 million in net proceeds on account of our ordinary shares issued in January 2004; and \$33.8 million from Investment Center grants. These liquidity resources financed our investments made during the year ended December 31, 2003, which aggregated approximately \$201 million in connection with construction, equipment and other assets of Fab 2, including our purchase and transfer of technology from Motorola and Toshiba and construction and equipping of Fab 2.

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Our Fab 2 operating activities in 2003 and 2002 generated negative cash flows of \$75.3 million and \$1.8 million, respectively, and \$5.7 million of positive cash flows in 2001. We expect our Fab 2 operating expenses in 2004 to result in negative cash flows in the amount of approximately \$40 million. Our Fab 1 operating activities generated positive cash flows since the second quarter of 2002, and we expect such activities to generate positive cash flows from operating activities in 2004 as well.

As of December 31, 2003, we had loans in the amount of \$431 million in connection with the loans we obtained during 2003, 2002 and 2001 for the establishment of Fab 2. As of December 31, 2003, we had no loans in connection with Fab 1, following the repayment and termination of our remaining \$10.0 million in loans in December 2003.

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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. Production capacity at the end of December 2003 was 8,500 wafer starts per month. We currently expect to have production capacity ranging between 13,000 and 15,000 wafer starts per month by the end of 2004. 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 production will be approximately \$1.5 billion. As of December 31, 2003, we received a total of \$941 million for the Fab 2 project, as set forth below in tabular form. The remainder of the Fab 2 project can be funded by additional grants available from the Investment Center, debt financing made available from our banks, sales of our securities, proceeds from the sale of securities we own in certain companies, including Saifun Semiconductors, wafer prepayments from our customers, payments we receive from Matsushita and cash flow from operations.

We expect to have adequate liquidity for our Fab 1 activities in 2004, which shall be generated mainly from its operating activities. In the event that our contemplated transaction with Siliconix is completed (see "Item 4: History and Development of the Company"), the funding of the required assets for Fab 1 and the execution of this transaction is expected to be provided to us by Siliconix.

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 in Fab 2 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 the following sources: (1) additional loans under the Fab 2 credit facility of approximately \$69 million; (2) Investment Center grants of approximately \$30 million; and (3) sales of our securities.

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During the years 2003, 2002 and 2001, the majority of our liquidity and capital resources and expenditures were in connection with our Fab 2 project, in which we have invested as of December 31, 2003 approximately \$900 million (primarily in 2003 and 2002). 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. 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, any or all of 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.

Amounts  
expected  
or required

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	Received as of December 31, 2003	to be received after December 31, 2003  (in millions)	Total (5)
Financial Sources			
Wafer Partners and other equity investors	\$306	\$ 0	\$306
Israel Government Investment Center	118	132 (1)	250
Credit facility	431	69 (2) (4)	500
Other financing sources	86	152 (3) (4)	238

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(1) 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" below). Failure to meet this requirement may result in the cancellation of all or a portion of our grants. See "Risk Factors -- 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."

(2) 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.

(3) Under the November 2003 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 gross proceeds of our recent offering, amounting to \$80.1 million, will be applied toward our compliance with this contractual obligation. We expect to raise the remaining funding through: (i) 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; (iv) a portion of payments we receive from Matsushita and (v) proceeds from the exercise of employee options.

(4) 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.

(5) We will be required to make capital investments and implement and acquire advanced technologies of an aggregate of approximately \$1.5 billion in order to ramp-up Fab 2 to 33,000 wafer starts per month. All of our capital investments in 2004 will be made in Fab 2. In addition to the amounts listed in footnote 3 above, we will require additional cash to complete the full ramp-up of Fab 2; we expect to fund these cash needs through cash generated from operations.

### FAB 2 AGREEMENTS

In January 2001, we commenced construction of Fab 2, our new advanced wafer fab adjacent to Fab 1 in Migdal Haemek. Fab 2 offers integrated circuit, or 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 implementing in Fab 2 and expect to offer

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in the future. The overall clean room area in Fab 2 is approximately 100,000 square feet. We began volume production at Fab 2 during the third quarter of 2003. Production capacity at the end of December 2003 was 8,500 wafer starts per month, and we currently expect to have production capacity ranging between 13,000 and 15,000 wafer starts per month by the end of 2004. 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. 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 \$900 million has been expended through December 31, 2003.

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WAFER PARTNER AGREEMENTS. During 2000, we entered into a series of agreements with four wafer partners: SanDisk, Alliance Semiconductor, Macronix International and QuickLogic Corporation. 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, including during the ramp-up of Fab 2. In addition, these agreements generally provide for a five percent discount on wafer purchases made by the wafer partners of up to 80% of the maximum 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 and financial investors relating to their fifth milestone payments, which was re-approved by our shareholders after a further amendment in December 2003 (see -- "Amendment to Fifth Milestone Payment Schedule" below).

To date, we have received an aggregate of \$246.8 million from our wafer partners, of which \$199.6 million was invested in consideration for 26,125,712 of our ordinary shares, and the remaining \$47.2 million was established as wafer credits.

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. In consideration of ICTech's aggregate investment of \$50 million, we issued ICTech a total of 6,749,669 of our ordinary shares through January 2004.

In February 2001, the Challenge Fund-Etgar II agreed to invest \$5.0 million in our company on substantially the same terms as ICTech. In consideration of Challenge's aggregate investment of \$5.0 million, we issued Challenge a total of 670,166 of our ordinary shares through January 2004.

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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 February 2003, we reached an agreement with our Fab 2 investors, SanDisk, Alliance, Macronix, ICTech and Challenge, to advance the fifth and final Fab 2 milestone payment in two installments. A portion of the first installment amounting to \$15.9 million was invested by the Fab 2 investors in May 2003, and they were issued ordinary shares at a purchase price of \$2.983 per share.

The remaining \$25.1 million due in connection with the fifth milestone was paid in December 2003. These parties were 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), they were issued 2,346,786 ordinary shares based on the \$7.00 offering price in the January 2004 underwritten offering of ordinary shares to the public. 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 "Credit Facility" below).

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WAFER CREDITS. In connection with their investments in our Fab 2 project, we issued to our wafer partners non-transferable credits which may be used to reduce the cash amounts to be paid by them when paying for wafers manufactured in Fab 2. These credits could generally be used at a rate of 7.5% for purchases made through June 2005 and 15% for purchases made thereafter. Our major wafer partners, SanDisk, Alliance and Macronix, have recently agreed that they will not utilize any of their credits, which amount to \$41.7 million as of December 31, 2003, for purchase orders of our wafer products from November 11, 2003 until December 31, 2006. From January 1, 2004 to December 31, 2006, each wafer partner is entitled, every quarter, to convert into our ordinary shares 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 could have been utilized during this period and 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 day of the relevant quarter. For example, if our major wafer partners purchase an amount of wafers which would otherwise result in their using the full amount of credits available to them and they elect to convert all of these credits into ordinary shares, we will issue them an aggregate of 8.3 million shares, assuming the average trading price of our ordinary shares during the 15 consecutive trading days preceding the last relevant quarter is \$5.00; if the average trading price of our ordinary shares is \$10.00, we will issue an aggregate of 4.2 million shares. We have also agreed to allow our wafer partners

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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.

The ordinary shares issued with respect to the fifth milestone payment are also 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 have been 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.

TECHNOLOGY AGREEMENT WITH TOSHIBA. In April 2000, we entered into a technology transfer agreement with Toshiba Corporation of Japan, pursuant to which Toshiba has and will transfer to us certain advanced CMOS technologies for use in Fab 2. In exchange for license and technology 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. Based on Toshiba's 0.18-micron CMOS process technology, we have internally developed an enhanced industry compatible version of the process technology. Subject to prior termination for cause by Toshiba, our licenses under our agreement with Toshiba are perpetual. Our agreement with Toshiba does not include any non-competition arrangements. Toshiba has invested \$10 million in our equity and acquired 772,667 ordinary shares as part of its technology partnership agreement. We also agreed to reserve a portion of our Fab 2 capacity for Toshiba.

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TECHNOLOGY TRANSFER AND DEVELOPMENT AGREEMENT WITH MOTOROLA. In September 2002, we entered into a technology transfer and development agreement with Motorola, Inc., 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 our technology transfer agreement with Motorola are perpetual. Our agreement with Motorola does not include any non-competition arrangements.

JOINT DEVELOPMENT AGREEMENT WITH MATSUSHITA. In June 2002, we entered into an agreement with Matsushita Electronic Inc., for the joint development of 0.18-micron embedded microFLASH technology. Matsushita granted to us the non-exclusive right to utilize, on a royalty-free basis, our jointly developed technology, which is based on Matsushita's 0.18 micron process technology, for foundry services or for the manufacture and sale of our own proprietary products. We granted Matsushita royalty-free, non-exclusive license with respect to our microFLASH technology for manufacturing semiconductor devices that utilize our jointly developed technology for its own semiconductor business.

LICENSE AGREEMENT WITH DSPG. In January 2002, we licensed from DSP Group, Inc. their Teak(R) Digital Signal Processing (DSP) core for use with our 0.18 micron process technology. Our royalty-bearing license is generally non-exclusive. Subject to DSP Group's termination of the agreement for cause,

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the term of our license is through December 31, 2007.

CREDIT FACILITY. In January 2001, we entered into a credit facility with two leading Israeli banks, Bank Hapoalim and Bank Leumi, 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 repaid our banks on December 31, 2003 all payments due by such date, amounting to \$431 million and, concurrently, drew 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 December 31, 2003, we have drawn \$431 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 2009 with respect to ICTech).

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Under the terms of the amended facility agreement, we must also meet certain financial ratios. For any quarter, 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 additional financial covenants relating to annual EBITDA, EBITDA over Debt Service and Debt over EBITDA. We are currently 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 were to

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raise \$24.6 million from our Fab 2 investors in connection with their fifth milestone payment by December 11, 2003 (see ``Amendment to Fifth Milestone Payment Schedule'' above):

- o \$28.0 million by March 11, 2004;
- o \$25.5 million by June 30, 2004;
- o \$25.5 million by December 31, 2004;
- o \$36.5 million by June 30, 2005; and
- o \$36.5 million by December 31, 2005.

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As of the date of this annual report, we have raised \$80.8 million out of the abovementioned \$152 million. 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:

- o 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;
- o 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;
- o 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;
- o 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;
- o 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; and
- o The warrants shall expire five years from their date of issuance.

If our banks exercise this option, The Israel Corporation Ltd. ('TIC'), the parent company of our current major shareholder ('ICTech'), has undertaken to our banks to exercise all of the rights ICTech 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.

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 commitment 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 by TIC, 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 credit 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.

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 therefore issued warrants for the purchase of 58,906 of our ordinary shares at an exercise price of \$6.17 (the 15 day average closing price of our shares or Nasdaq prior to the date the amendment was signed with our banks).

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 to be issued with respect to the subscription fee will be the 15 day average closing price of our shares prior to the date of the rights offering prospectus. All the warrants shall expire five years from their date of issuance.

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We have agreed to indemnify ICTech and TIC for any liabilities they incur with respect to these arrangements, following the utilization of TIC's undertaking, 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, 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 December 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.

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We have registered liens in favor of our 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.

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 (i.e., up to \$250 million), subject

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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 be obtained by way of a credit facility from commercial banks (which amount was subsequently reduced to \$500 million). We have registered a lien on our assets for the benefit of the Investment Center which ranks subordinate to our banks. 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 December 31, 2003, we had received approximately \$118 million in grants from the Investment Center, and raised \$302.1 million as paid in capital towards the \$400 million requirement described above. Subsequent to December 31, 2003, we raised an additional \$80.8 million that has been allocated towards the \$400 million. As long as we comply with the terms of our approval certificate, we are not required to make royalty payments or other payments under the terms of our Investment Center grants.

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 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, unless an exempting amendment to this law is adopted by the Israeli parliament. 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.

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Since the inception of our financing activity for Fab 2, we have completed the following public offerings:

**SALE OF UNITS.** In January 2002, we completed a sale of units in Israel, composed of NIS 110,579,800 principle amount of convertible unsecured subordinated debentures and 2,211,596 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 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 linked to the Israel Consumer Price Index. Each option is exercisable into one ordinary share until January 20, 2006 at an exercise price of NIS 39 (as of December 31, 2003 - NIS 40.83, \$9.32), linked to the Israel Consumer Price Index.

**RIGHTS OFFERING.** In September 2002, we distributed to our shareholders and certain of our employees in Israel and the United States rights to purchase ordinary shares and warrants to purchase our ordinary shares. Substantially all of the rights exercised in connection with the rights offering were made by ICTech and our major wafer partners. The rights offering resulted in net proceeds of approximately \$19.7 million.

**UNDERWRITTEN PUBLIC OFFERING.** In January 2004, we completed an underwritten public offering in the United States of 11 million of our ordinary shares at a price to the public of \$7.00 per share. Pursuant to this offering, our underwriters partially exercised their over-allotment option and purchased 444,500 of our ordinary shares at a price of \$7.00 per share. The underwritten public offering, including the partial exercise of the over-allotment option,

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resulted in net proceeds of approximately \$75.2 million.

### C. RESEARCH AND DEVELOPMENT, PATENTS AND LICENSES

Our research and development activities have related primarily to our process development and microFLASH module design 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, 2003, 2002 and 2001 were \$20.7 million, \$17.0 million and \$9.6 million net of government participation of \$1.1 million, \$1.2 million and \$1.4 million, respectively. We have also incurred costs in connection with the transfer of Toshiba and Motorola technology for use in Fab 2, some of which have been amortized over the estimated life of the technology following the commencement of production in Fab 2 during the third quarter of 2003 (see also in this Item "Critical Accounting Policies - Depreciation and Amortization of Fab 2 Assets"). For a description of our research & development policies and our patents and licenses, see "Item 4. Information on the Company--4.B. Business Overview."

### D. TREND INFORMATION

The semiconductor industry has historically been highly cyclical on a seasonal and 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.

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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. In order for an independent wafer foundry to successfully compete, it must decrease the process geometries with which it manufactures wafers every 18 to 24 months, and it must purchase or develop suitable technology, which typically costs between \$30 million and \$50 million per generation. A new generation of process technology will also require the purchase of manufacturing equipment, which currently costs approximately \$20 million to provide capacity to produce 1,000 wafer starts per month. In order for us to successfully compete over the long term, we must be capable of manufacturing wafers with increasingly smaller geometries. We have already begun the transfer to us of 0.13 micron process technology which we licensed from Motorola, and our Fab 2 business plan contemplates the purchase of manufacturing equipment necessary to manufacture wafers with a process geometry of 0.13 microns. We plan to initiate volume production in geometries of 0.13 microns at Fab 2 during 2005.

### E. OFF-BALANCE SHEET ARRANGEMENTS

We are not a party to any material off-balance sheet arrangements. In addition, we have no unconsolidated special purpose financing or partnership entities that are likely to create material contingent obligations.





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\$0.6 million in standby letters of credit and guarantees to secure our Fab 2 construction and equipment obligations.

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The above table does not include other contractual obligations or commitments we have, such as undertakings pursuant to royalty agreements, commissions and service agreements. We are unable to reasonably estimate the total amounts to be paid under the terms of these agreements, as the royalties, commissions and required services are a function of future sales revenues, the volume of business and hourly-based fees. In addition, the above table does not include our long-term liability with respect of our wafer partner advances, which as of December 31, 2003, amounted to \$46.3 million that may be utilized by them against future purchases of Fab 2 products. We are unable to reasonably estimate the total amounts that may be utilized by our wafer partners since we can not reasonably estimate their future orders in the periods set forth in the above chart; and even if we could reasonably estimate our wafer partners' future orders, we are unable to determine which portion of the advances they are entitled to utilize against purchases will be converted into our fully paid ordinary shares, as provided under the recent amendment with our wafer partners (see "Fab 2 Agreements").

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### ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

#### DIRECTORS AND SENIOR MANAGEMENT

Set forth below is information regarding the members of our administrative, supervisory or management bodies and our directors.

NAME	Age	TITLE
Carmel Vernia	51	Chief Executive Officer
Amir Harel	42	Vice President and Chief Financial Officer
Doron Simon	38	President, Tower Semiconductor USA, V.P. Marketing, Tower Semiconductor Ltd.
Dr. Itzhak Edrei	44	Vice President of Research and Development
Rafi Nave	54	Vice President of Customer Services
Erez Taoz	49	Vice President, Fab 2 General Manager
Eli Lazar	53	Vice President of Human Resources, Logistics and Information Systems
Rafi Mor	40	Vice President, Fab 1 Manager
DIRECTORS		
Carmel Vernia	51	Chairman of the Board
Idan Ofer	48	Director
Ehud Hillman	51	Vice Chairman
Dr. Eli Harari	58	Director
Miin Wu	55	Director
N.D Reddy	64	Director
Hans Rohrer	54	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. Following his service as Chief Scientist, Mr. Vernia was subject to a mandatory cooling period under Israeli law. 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.

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.

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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 STMicroelectronics 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

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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 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.

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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 after having served 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.

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 was appointed Vice President of Marketing on November 2003 and has been President of Tower Semiconductor USA since April 2001. Since 1993, Mr. Simon has served in various capacities, including Director of Customer Service, Director of Planning and Turnkey Operations and Director of 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.

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Rafi Nave was appointed Vice President of Customer Services in August 2003.

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From 1996 to 2003, Mr. Nave served as Vice President of Research and Development for NDS Group. From 1974 to 1995, 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.

### B. COMPENSATION

For the years ended December 31, 2003 and 2002, we paid to all our directors and senior management, as a group, an aggregate of \$0.9 million and \$1.4 million, respectively, in salaries, fees and bonuses, excluding management fees paid to a subsidiary of TIC (see Item 7 "Major Shareholders and Related Party Transactions--Related Party Transactions"). The total amount set aside or accrued in the year ended December 31, 2003 to provide for severance, retirement and similar benefits for such persons was \$0.2 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 \$220,000, including customary benefits provided to our officers. As of December 31, 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.

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During the year ended December 31, 2003, we granted a total of 462,000 options to purchase ordinary shares to our senior managers as a group. These options have a weighted average exercise price of \$5.31 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 \$5,940) annual fee plus NIS 915 (approximately \$210) per meeting. The aggregate amount payable to our independent directors with respect to the year ended December 31, 2003 was approximately \$15,200. 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.

C. 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 who is not already a director may act as an alternate, and the same person may not act as the alternate for more than one director at a time. 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.

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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 reviewing the company's financial statements, monitoring the company's independent auditors, 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

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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. An employee, executive officer or director of a controlling shareholder of an Israeli company may serve as a member of an audit committee under Israeli law, unless such individual controls more than 50% of the controlling shareholder. Each of our independent directors and Mr. Dan Reddy (who according to public filings is the Chairman, President, Chief Executive Officer and a 21% shareholder of Alliance Semiconductor) are members of our 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:

- o the overall employment market environment;
- o the basic salaries and benefits available to comparable officers at comparable companies;
- o the need to attract and retain officers of an appropriate caliber;
- o the need to ensure such executives' commitment to the continued success of our company by means of incentive schemes;
- o the performance of the employee; and
- o financial and operating results of our company.

#### D. EMPLOYEES

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

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	DECEMBER 31,		
	2003	2002	2001
	-----	-----	-----
Process and Product Engineering, R&D, Design	375	375	299
Manufacturing, Operations (*)	650	94	78
Manufacturing Support	114	189	154
Administration, Marketing, Finance	81	99	108
Fab 2 Construction and Technology Transfer (*)	45	438	409
	-----	-----	-----
Total	1,265	1,195	1,048
	=====	=====	=====

(\*) Following the commencement of operations of Fab 2 during the third quarter of 2003, most of the employees that prior to that date were classified under Fab 2 construction and technology transfer activities are classified under manufacturing operations activities.

We also use temporary employees as necessary. During 2003, we used on average 96 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.

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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.

### E. SHARE OWNERSHIP

All of the persons listed above under the caption "Directors and Senior Management" own ordinary shares and/or options to purchase ordinary shares. None of such persons owns shares and/or options amounting to 1% or more of the outstanding ordinary shares. Information regarding our share option plans and warrants presented in Note 14B to our consolidated financial statements is incorporated herein by reference.

## ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

### MAJOR SHAREHOLDERS

The following table and notes thereto set forth information, as of February 29, 2004, concerning the beneficial ownership (as defined in Rule 13d-3 under the Securities Exchange Act of 1934) and on a diluted basis of ordinary shares by any person who is known to own at least 5% of the ordinary shares of our



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company. On such date 65,582,383 ordinary shares were issued and outstanding. The voting rights of our major shareholder do not differ from the voting rights of other holders of our ordinary shares. However, certain of our major shareholders are party to a shareholders agreement as a result of which they may be able to exercise control over matters requiring shareholder approval, including the election of directors and approval of significant corporate transactions.

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IDENTITY OF PERSON OR GROUP -----	SHARES BENEFICIALLY OWNED -----	PERCENT OF CLASS (1) -----	PERCENT OF CLASS (DILUTED) (2) -----
Israel Corporation Technologies (ICTech) Ltd. ("ICTech") (3) (4)	15,143,066 (5)	22.78%	18.42%
SanDisk Corporation (4)	9,302,561 (6)	14.11%	11.32%
Alliance Semiconductor Corporation (4)	9,266,137 (7)	14.05%	11.27%
Macronix International Co. Ltd. (4)	9,070,395 (8)	13.77%	11.04%
Ontario Teachers' Pension Plan Board ("OTPP")	4,350,000 (9)	6.50%	5.29%

(1) Assumes the holder's beneficial ownership of all Ordinary Shares that the holder has a right to purchase within 60 days from February 29, 2004.

(2) Assumes that all currently outstanding rights to purchase Ordinary Shares have been exercised by all holders.

(3) On January 31, 2001, Israel Corp. transferred all its beneficial ownership of shares of Tower to ICTech.

(4) 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 63.40% of our outstanding shares.

(5) Based on information provided by ICTech, represents 14,260,504 shares currently owned by ICTech and 823,656 shares issuable upon the exercise of currently exercisable warrants and 58,906 shares issuable upon exercise of warrants granted on December 2003 at an exercise price of \$6.17.

(6) Based on information provided by SanDisk, represents 8,942,249 shares currently owned by SanDisk and 360,312 shares issuable upon the

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exercise of currently exercisable warrants.

- (7) Based upon information provided by Alliance, represents 8,908,390 shares currently owned by Alliance, and 357,747 shares issuable upon the exercise of currently exercisable warrants.

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- (8) Based on information provided by Macronix, represents 8,773,395 shares currently owned by Macronix, and 297,000 shares issuable upon the exercise of currently exercisable warrants.

- (9) 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 issued pursuant to a Share Purchase Agreement dated July 23, 2002.

Pursuant to a shareholders agreement dated as of January 18, 2001, among Israel Corp., Alliance Semiconductor, SanDisk and Macronix, such parties have agreed, among other things, to vote or cause to be voted all their respective shares for the election to the Board of Directors of nominees designated by each party, for nominees recommended by the Board, and for the election of a designee of the Israel Corp. to serve as Chairman of the Board, as well as to vote against the election of any other persons to the Board of Directors. In addition, subject to certain exceptions, each shareholder has agreed to restrictions on transfer of its shares for three years and to maintain a minimum share ownership for five years. The shareholders agreement also provides for certain rights of first refusal.

As of February 19, 2004, there were a total of 33 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 29% of the outstanding ordinary shares.

### B. RELATED PARTY TRANSACTIONS

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, which have all vested. All options granted will remain exercisable for a period of three years from the date of vesting.

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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

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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 December 31, 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.

### C. INTERESTS OF EXPERTS AND COUNSEL

Not applicable.

## ITEM 8. FINANCIAL INFORMATION

### A. CONSOLIDATED STATEMENTS AND OTHER FINANCIAL INFORMATION

Our consolidated financial statements are incorporated herein by reference to pages F-1 through F-35.

### 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. In January 2004, the defendants filed a motion to dismiss the

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plaintiffs' complaint on both substantive and procedural grounds; as of the date of this annual report, the presiding court has not rendered a decision to this motion to dismiss the plaintiffs' complaint. 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.

From time to time we are a party to various litigation matters incidental to the conduct of our business. There is no pending or threatened legal proceeding to which we are a party, that, in the opinion of management, is likely to have a material adverse effect on our future financial results or financial condition.

### B. SIGNIFICANT CHANGES

NOT APPLICABLE.

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## ITEM 9. THE OFFER AND LISTING

### MARKETS AND SHARE PRICE HISTORY

The primary trading market for our ordinary shares is the Nasdaq National Market, where our shares are listed and traded on the 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:

PERIOD -----	HIGH (\$) -----	LOW (\$) -----
February 2004	7.95	6.60
January 2004	10.80	6.53
December 2003	7.90	6.18
November 2003	7.61	5.88
October 2003	6.15	4.00
September 2003	5.00	4.02
Fourth Quarter 2003	7.90	4.00
Third Quarter 2003	5.30	4.02
Second Quarter 2003	6.46	2.78
First Quarter 2003	3.56	2.16
Fourth Quarter 2002	5.51	3.11
Third Quarter 2002	5.85	3.26
Second Quarter 2002	6.93	5.23
First Quarter 2002	8.50	5.11
2003	7.90	2.16
2002	8.50	3.11
2001	17.12	3.80
2000	43.50	10.38
1999	13.75	6.13

In January 2001, our shares commenced trading on the Tel Aviv Stock Exchange (TASE) in Israel under the symbol "Tower." The following table sets forth, for the periods indicated, the high and low reported sales prices, in NIS, of the ordinary shares on the Tel Aviv Stock Exchange:

PERIOD -----	HIGH (NIS) -----	LOW (NIS) -----
February 2004	34.88	29.37
January 2004	46.39	30.50
December 2003	34.67	24.61
November 2003	35.00	22.30
October 2003	27.75	18.30
September 2003	22.19	21.80
Fourth Quarter 2003	35.00	18.30
Third Quarter 2003	22.90	18.20
Second Quarter 2003	28.60	12.90
First Quarter 2003	16.46	10.25
Fourth Quarter 2002	25.11	15.30
Third Quarter 2002	27.46	18.70
Second Quarter 2002	33.98	25.04
First 2003	37.99	24.49
2003	35.00	10.25
2002	37.99	15.30
2001	58.50	16.80

## ITEM 10. ADDITIONAL INFORMATION

## ARTICLES OF ASSOCIATION; ISRAEL COMPANIES LAW

## ARTICLES OF ASSOCIATION

Our shareholders approved the amendment of our Articles of Association ("Articles") in November 2000. The objective stated in the Articles is to engage in any lawful activity.

We have currently outstanding only one class of equity securities, our ordinary shares, par value NIS 1.00 per share. Holders of ordinary shares have one vote per share, and are entitled to participate equally in the payment of dividends and share distributions and, in the event of a liquidation of the Company, in the distribution of assets after satisfaction of liabilities to creditors. No preferred shares are currently authorized.

Our Articles require that we hold our annual general meeting of shareholders each year no later than 15 months from the last annual meeting, at a time and place determined by the Board of Directors, upon at least 21 days' prior notice to our shareholders. No business may be commenced until a quorum of

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two or more shareholders holding at least 33% of the voting rights is present in person or by proxy. Shareholders may vote in person or by proxy, and will be required to prove title to their shares as required by the Israeli Companies Law (the "Companies Law") pursuant to procedures established by the Board of Directors. Resolutions regarding the following matters must be passed by an ordinary majority of those voting at the general meeting:

- o amendments to our Articles;
- o appointment or termination of our auditors;
- o appointment and dismissal of directors;
- o approval of acts and transactions requiring general meeting approval under the Companies Law;
- o increase or reduction of authorized share capital or the rights of shareholders or a class of shareholders;
- o any merger as provided in section 320 of the Companies Law; and
- o the exercise of the Board of Directors' powers by general meeting, if the Board of Directors is unable to exercise its powers and the exercise of any of its powers is essential for Tower's proper management, as provided in section 52(a) of the Companies Law.

A special meeting may be convened by request of two directors or by written request of one or more shareholders holding at least 5% of our issued share capital and 1% of the voting rights or one or more shareholders holding at least 5% of the voting rights. Shareholders requesting a special meeting must submit their proposed resolution with their request. Within 21 days of receipt of the request, the Board must convene a special meeting and send out notices setting forth the date, time and place of the meeting. Such notice must be given at least 21 days but not more than 35 days prior to the special meeting.

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### THE COMPANIES LAW

We are subject to the provisions of new Israeli Companies Law, which became effective on February 1, 2000. The Companies Law codifies the fiduciary duties that "office holders," including directors and executive officers, owe to a company. An office holder, as defined in the Companies Law, is a director, general manager, chief business manager, deputy general manager, vice general manager, executive vice president, vice president, another manager directly subordinate to the managing director or any other person assuming the responsibilities of any of the forgoing positions without regard to such person's title. Each person listed in the table in "Item 6. Directors, Senior Management and Employees" above is an office holder. Under the Companies Law, all arrangements as to compensation of office holders who are not directors require approval of the board of directors or a committee thereof. With the exception of compensation to outside directors in an amount specified in the regulations discussed above, arrangements regarding the compensation of directors also require audit committee and shareholder approval.

The Companies Law requires an office holder to promptly disclose any personal interest that he or she may have and all related material information known to him or her, in connection with any existing or proposed transaction by the company. In addition, if the transaction is an extraordinary transaction,

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the office holder must also disclose any personal interest held by the office holder's spouse, siblings, parents, grandparents, descendants, spouse's descendants and the spouses of any of the foregoing, or by any corporation in which the office holder is a 5% or greater shareholder, holder of 5% or more of the voting power, director or general manager or in which he or she has the right to appoint at least one director or the general manager. An extraordinary transaction is defined as a transaction not in the ordinary course of business, not on market terms, or that is likely to have a material impact on the company's profitability, assets or liabilities.

In the case of a transaction that is not an extraordinary transaction, after the office holder complies with the above disclosure requirements, only board approval is required unless the articles of association of the company provide otherwise. The transaction must not be adverse to the company's interest. If the transaction is an extraordinary transaction, then, in addition to any approval required by the Articles of Association, it also must be approved first by the audit committee and then by the board of directors, and, in specified circumstances, by a meeting of the shareholders. An office holder who has a personal interest in a matter that is considered at a meeting of the board of directors or the audit committee may not be present at this meeting or vote on this matter.

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The Companies Law applies the same disclosure requirements to a controlling shareholder of a public company, which is defined as a shareholder who has the ability to direct the activities of a company, other than if this power derives solely from the shareholder's position on the board of directors or any other position with the company and includes a shareholder that holds 25% or more of the voting rights if no other shareholder owns more than 50% of the voting rights in the company. Extraordinary transactions with a controlling shareholder or in which a controlling shareholder has a personal interest, and agreements relating to employment and compensation terms of controlling shareholders require the approval of the audit committee, the board of directors and the shareholders of the company. The shareholder approval must either include at least one-third of the shares held by disinterested shareholders who are present, in person or by proxy, at the meeting, or, alternatively, the total shareholdings of the disinterested shareholders who vote against the transaction must not represent more than one percent of the voting rights in the company.

In addition, a private placement of securities that will increase the relative holdings of a shareholder that holds five percent or more of the company's outstanding share capital, assuming the exercise by such person of all of the convertible securities into shares held by that person, or that will cause any person to become, a holder of more than five percent of the company's outstanding share capital, requires approval by the board of directors and the shareholders of the company. However, subject to certain exceptions, shareholder approval will not be required if the aggregate number of shares issued pursuant to such private placement, assuming the exercise of all of the convertible securities into shares being sold in such a private placement, comprises less than twenty percent of the voting rights in a company prior to the consummation of the private placement.

Under the Companies Law, a shareholder has a duty to act in good faith towards the company and other shareholders and refrain from abusing his power in the company, including, among other things, voting in the general meeting of shareholders on the following matters:

- o any amendment to the Articles of Association;

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- o an increase of the company's authorized share capital;
- o a merger; or
- o approval of interested party transactions that require shareholder approval.

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In addition, any controlling shareholder, any shareholder who knows that it possesses power to determine the outcome of a shareholder vote and any shareholder who has the power to appoint or prevent the appointment office holder in the company is under a duty to act with fairness towards the company. The Companies Law does not describe the substance of this duty. The Companies Law requires that specified types of transactions, actions and arrangements be approved as provided for in a company's articles of association and in some circumstances by the audit committee, by the board of directors and by the shareholders. In general, the vote required by the audit committee and the board of directors for approval of these matters, in each case, is a majority of the disinterested directors participating in a duly convened meeting.

### MATERIAL CONTRACTS

FAB 2 AGREEMENTS. During 2000 and through 2002, we entered into several important Fab 2 agreements and arrangements with a key technology partner, wafer and equity financing partners, the Israeli Investment Center and two leading Israeli banks. Discussions of these agreements are incorporated herein by reference to the discussion under the caption "Fab 2 Agreements" in "Item 5. Operating and Financial Review and Prospects" of this annual report and to Note 13A to the consolidated financial statements included in this annual report.

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### EXCHANGE CONTROLS

Under Israeli law, non-residents of Israel who purchase ordinary shares with certain non-Israeli currencies (including dollars) may freely repatriate in such non-Israeli currencies all amounts received in Israeli currency in respect of the ordinary shares, whether as a dividend, as a liquidating distribution, or as proceeds from any sale in Israel of the ordinary shares, provided in each case that any applicable Israeli income tax is paid or withheld on such amounts. The conversion into the non-Israeli currency must be made at the rate of exchange prevailing at the time of conversion.

Under Israeli law and our company's Memorandum and Articles of Association both residents and non-residents of Israel may freely hold, vote and trade our ordinary shares.

### TAXATION

#### A. 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. This exemption did not apply to



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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 securities derived from January 1, 2003 and on will, in general, be liable to capital gains tax of 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 an Israeli resident 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 (Inflationary 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 US-Israel Tax Treaty, a US 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 US treaty resident holds 10% or more of the voting power in our company.

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### B. Israeli Tax on Interest Income and on Original Issuance Discount

Interest and Original Issuance Discount (OID) on our convertible debentures, issued in January 2002, accruing from January 1, 2003 and on will in general be liable to Israeli tax of up to 15% if received by an individual. This reduced rate of tax will not apply if the interest and OID are business income in the hands of the recipient, if the recipient is a controlling shareholder of our company, or if financing costs for the purchase of the debentures were deducted by the individual in the calculation of the individual's Israeli taxable income in which cases regular rate of tax will apply. Interest and OID received by a corporation are generally taxable at a rate of 36%.

Under new regulations, promulgated as part of the recent tax reform, withholding tax at source from debenture interest and OID paid to non-resident individuals will in general be at a rate of 15% and from debenture interest and OID paid to non-resident corporations at a rate of 25%. In any event, under the US-Israel tax treaty, the maximum Israeli tax withheld on interest and OID paid on our convertible debentures to a US treaty resident (other than a US bank, savings institution or company) is 17.5%.

### C. 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 US-Israel Tax Treaty, Israeli withholding tax on dividends paid to a US 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

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is a US 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.

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### D. PFIC Rules

A non-U.S. corporation will be classified as a passive foreign investment company, or a PFIC, for U.S. federal income tax purposes if either (i) 75% or more of its gross income for the taxable year is passive income, or (ii) on a quarterly average for the taxable year by value (or, if it is not a publicly traded corporation and so elects, by adjusted basis), 50% or more of its gross assets produce or are held for the production of passive income.

We do not believe that we satisfied either of the tests for PFIC status in 2003 or in any prior year. However, there can be no assurance that we will not be a PFIC in 2004 or a later year. If, for example, the "passive income" earned by us exceeds 75% or more of our "gross income", we will be a PFIC under the "income test". Passive income for PFIC purposes includes, among other things, gross interest, dividends, royalties, rents and annuities. For manufacturing businesses, gross income for PFIC purposes should be determined by reducing total sales by the cost of goods sold. Although not free from doubt, if our cost of goods sold exceeds our total sales by an amount greater than our passive income, such that we are treated as if we had no gross income for PFIC purposes, we believe that we would not be a PFIC as a result of the income test. However, 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.

If we were to be a PFIC at any time during a U.S. holder's holding period, such U.S. holder would be required to either: (i) pay an interest charge together with tax calculated at maximum ordinary income rates on "excess distributions," which is defined to include gain on a sale or other disposition of ordinary shares, or (ii) so long as the ordinary shares are "regularly traded" on a qualifying exchange, elect to recognize as ordinary income each such year the excess in the fair market value, if any, of its ordinary shares at the end of the taxable year over such holder's adjusted basis in such ordinary shares and, to the extent of prior inclusions of ordinary income, recognize ordinary loss for the decrease in value of such ordinary shares (the "mark to market" election). For this purpose, the Nasdaq National Market is a qualifying exchange. U.S. holders are strongly urged to consult their own tax advisers regarding the possible application and consequences of the PFIC rules.

The above discussion does not purport to be an official interpretation of the tax law provisions mentioned therein or to be a comprehensive description of all tax law provisions which might apply to our securities or to reflect the views of the relevant tax authorities, and it is not meant to replace professional advice in these matters. The above discussion is based on current, applicable tax law, which may be changed by future legislation or reforms. Non-residents should obtain professional tax advice with respect to the tax consequences under the laws of their countries of residence of holding or selling our securities.

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### DOCUMENTS ON DISPLAY

We are required to file reports and other information with the SEC under the Securities Exchange Act of 1934 and the regulations thereunder applicable to foreign private issuers. Reports and other information filed by us with the SEC may be inspected and copied at the SEC's public reference facilities described below. Although as a foreign private issuer we are not required to file periodic information as frequently or as promptly as United States companies, we generally do publicly announce our quarterly and year-end results promptly and file periodic information with the SEC under cover of Form 6-K. As a foreign private issuer, we are also exempt from the rules under the Exchange Act prescribing the furnishing and content of proxy statements and our officers, directors and principal shareholders are exempt from the reporting and other provisions in Section 16 of the Exchange Act.

You may review a copy of our filings with the SEC, including any exhibits and schedules, at the SEC's public reference facilities in Room 1024, Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549 and at the regional offices of the SEC located at the Northwestern Atrium Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661. You may also obtain copies of such materials from the Public Reference Section of the SEC, Room 1024, Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 20549, at prescribed rates. You may call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. In addition, such information concerning our company can be inspected and copied at the offices of the National Association of Securities Dealers, Inc., 9513 Key West Avenue, Rockville, Maryland 20850 and at the offices of the Israel Securities Authority at 22 Kanfei Nesharim St., Jerusalem, Israel. As a foreign private issuer, all documents which were filed after November 4, 2002 on the SEC's EDGAR system will be available for retrieval on the SEC's website at [www.sec.gov](http://www.sec.gov). You may read and copy any reports, statements or other information that we file with the SEC at the SEC facilities listed above. These SEC filings are also available to the public on the Israel Securities Authority's website at [www.isa.gov.il](http://www.isa.gov.il) and from commercial document retrieval services. We also generally make available on our own Web site ([www.towersemi.com](http://www.towersemi.com)) all our quarterly and year-end financial statements as well as other information.

Any statement in this annual report about any of our contracts or other documents is not necessarily complete. If the contract or document is filed as an exhibit to the registration statement, the contract or document is deemed to modify the description contained in this annual report. We urge you to review the exhibits themselves for a complete description of the contract or document.

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### ITEM 11. 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. As of December 31, 2003 we had \$431 million outstanding long term debts which bear interest of three-month USD LIBOR plus 2.5%. We primarily enter into debt obligations to support capital expenditures needs. From time to time, we enter into interest rate collar agreements to modify our exposure to 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 various interest rate collar agreements with respect to a total amount of \$212 million of which \$172 million was effective as of December 31, 2003; some of these agreement gradually expire in 2006, with the remainder expiring in 2007,. With respect to \$172 million of our 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 6.78% (the floor rate plus 2.5%); if the LIBOR is between 4.28% and 5.56%, we will pay total interest at the actual LIBOR plus 2.5%; if the LIBOR is between 5.56% and 7.50%, we will pay total interest at a fixed rate of 8.06% (the cap rate plus 2.5%); and if the LIBOR is higher than 7.50%, we will pay the actual LIBOR rate plus 2.5%. At December 31, 2003, the LIBOR rate was 1.19%. Accordingly, as of December 31, 2003, the interest rate on the \$172 million of long-term loans covered by the collar agreements was 6.78%, and the interest rate on the \$259 million of long-term loans not subject to the collar agreements was 3.69%. These collar agreements resulted in a loss of \$5.3 million in the year ended December 31, 2003, of which \$2.5 million was capitalized to property and equipment. The fair value of the interest rate collar, as of December 31, 2003, was a \$9.9 million loss. Assuming a 10% upward shift in the LIBOR rate at December 31, 2003, (from 1.19% to 1.30%), the effective fair value of the \$259 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 \$1.3 million. The \$172 million debt hedged by the collar agreements would not have changed assuming such interest rate increases by 10%.

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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 5.3%; if the LIBOR is between 2.8% and 5.5%, we will pay interest at the LIBOR plus 2.5%; if the LIBOR is between 5.5% and 7.50%, we will pay total interest at a fixed rate of 8.0%; and if the LIBOR is higher than 7.50%, we will pay the LIBOR rate plus 2.5%.

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 these investments, their carrying value approximates the fair value.

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### FOREIGN EXCHANGE RISK

Our main foreign currency exposures give rise to market risk associated with exchange rate fluctuations of the US dollar, our functional and reporting currency, against the Japanese Yen, the Euro and the NIS. To protect the reductions in value and the volatility of future cash flows caused by changes in foreign exchange rates, we utilize from time to time forward transactions and currency cylinder options in order 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-a-vis the US dollar. A cylinder option is a combination of a purchased call option and a written put option. The combination of these options limit our exposure to changes in the exchange rate of the US dollar against foreign currencies by placing a maximum and minimum effective exchange rate, and accordingly, the dollar amount to be paid for equipment purchases. The forward transactions limit our foreign exchange risk exposure by placing a predetermined effective exchange rate. During the year ended December 31, 2003, we had options in an aggregate amount of \$45 million, which resulted in this period in a \$2.3 million gain (mostly capitalized to property and equipment). As of December 31, 2003, we had no open transactions.

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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 Israeli Consumer Price Index, or CPI. As of December 31, 2003, the adjusted outstanding principal amount of the convertible debentures was NIS 115.8 million (equivalent to \$26.4 million), and the exercise price of the Options (Series 1) was NIS 40.83 (equivalent to \$9.32). 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 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 December 2003, the CPI increased by 4.7% while the US dollar/NIS exchange rate decreased by 4.5%.

As of December 31, 2003 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 year ended December 31, 2003 was immaterial. As of December 31, 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 to occur is

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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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### ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

Not applicable.

### PART II

### ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

### ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

None.

### ITEM 15. CONTROLS AND PROCEDURES

An evaluation was performed under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, of the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-14(c) and 15d-14(c) under the Securities Exchange Act of 1934, as amended). Based on that evaluation, which was completed within 90 days of the filing date of this annual report, our chief executive officer and chief financial officer concluded that our disclosure controls and procedures were effective though we are constantly engaged in the process of improving these controls and procedures. There have been no significant changes in our disclosure controls or in other factors that could significantly affect disclosure controls subsequent to the date of the evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

### ITEM 16. [RESERVED]

### ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT

Our Board of Directors has determined that a member of our Audit Committee, Ms. Zehava Simon, is an audit committee financial expert.

### ITEM 16B. CODE OF ETHICS

We have revised our code of ethics, inter alia, to impose certain policies relating to ethical conduct on all of our directors and employees, including our chief executive officer, chief financial officer, principal accounting officer, and persons performing similar functions.

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### ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table presents fees for professional audit services rendered by our auditors for the audit of our consolidated annual financial statements for the years ended December 31, 2003 and 2002, and fees billed for other services rendered by our auditors including our public offerings of securities and tax services.

	2003	2002
	-----	-----
Audit Fees(1)	\$367,000	\$342,800

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(1) Audit fees consist of fees for professional services rendered for the audit of our consolidated financial statements and review of unaudited interim financial statements included in our quarterly reports and services provided by the independent auditor in connection with statutory and regulatory filings or engagements as well as tax services.

### PART III

#### ITEM 17. FINANCIAL STATEMENTS

Not applicable.

#### ITEM 18. FINANCIAL STATEMENTS

See Index to Financial Statements following the signature page.

#### ITEM 19. EXHIBITS

1.1 Articles of Association of the Registrant, approved by shareholders on November 14, 2000 (incorporated by reference to the correspondingly-numbered exhibit to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2001 (the "2000 Form 20-F")).

1.2 Memorandum of Association of the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the Registrant's Registration Statement on Form S-1, No. 33-83126).

2.1 Bank Warrants dated January 18, 2001 between the Registrant and Bank Hapoalim B.M. and Bank Leumi Le-Israel B.M. (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

2.2 Registration Rights Agreement, dated as of January 18, 2001, by and between SanDisk Corporation, Israel Corporation, Alliance Semiconductor Ltd. and Macronix International Co., Ltd. (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

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2.3 Terms of the Registrant's Convertible Debentures issued under an Indenture dated January 22, 2002 (incorporated by reference to the summary of terms included under the caption "Description of the Debentures" in Exhibit C to the Registrant's Report on Form 6-K for January 2002 (No. 2), filed January 16, 2002 ("January 2002 Form 6-K")).

2.4 Terms of the Registrant's Options (Series 1) (incorporated by reference to the summary of terms included under the caption "Description of the Options" in Exhibit C to the January 2002 Form 6-K).

3.1 Consolidated Shareholders Agreement, dated as of January 18, 2001, by and between SanDisk Corporation, Israel Corporation, Alliance Semiconductor Ltd. and Macronix International Co., Ltd. (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

4.1 Share Purchase Agreement, dated as of July 4, 2000, by and between SanDisk Corporation and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

4.2 Additional Purchase Obligation Agreement, dated as of July 4, 2000, by and between SanDisk Corporation ("SanDisk") and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

4.3 Share Purchase Agreement, dated as of August 29, 2000, by and between Alliance Semiconductor Corporation ("Alliance") and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

4.4 Share Purchase Agreement, dated as of December 11, 2000, by and between QuickLogic Corporation ("QuickLogic") and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

4.5 Share Purchase Agreement, dated as of December 12, 2000, by and between Macronix International Co., Ltd. ("Macronix") and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

4.6 Share Purchase Agreement, dated as of December 12, 2000, between Israel Corporation and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

4.7 Additional Purchase Obligation Agreement, dated as of December 12, 2000, between Israel Corporation and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

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4.8 Share Purchase Agreement, dated February 11, 2001, between The Challenge Fund - Etgar II and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

4.9 Facility Agreement dated January 18, 2001 among the Registrant, Bank Hapoalim B.M. and Bank Leumi Le-Israel B.M. (the "Facility Agreement") (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

4.10 Design and Construction/Turn-Key Contract dated as of August 20, 2000 among the Registrant, M+W Zander Holding GmbH, Meissner-Baran Ltd. and Baran Group Ltd. (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).



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4.11 Option Grant to Ehud Hillman dated September 24, 2000 (Hebrew language document; a summary of the terms is included in the 2000 Form 20-F under the caption "Related Party Transactions" in "Item 7. Major Shareholders and Related Party Transactions") (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

4.12 Approval dated December 31, 2000 of the Israeli Investment Center (Hebrew language document; a summary of the terms is included in the 2000 Form 20-F under the caption "Fab 2 Agreements" in "Item 5. Operating and Financial Review and Prospects") (incorporated by reference to the correspondingly-numbered exhibit to the 2000 Form 20-F).

4.13 Agreement between the Registrant and Saifun dated October 9, 1997 (incorporated by reference to exhibit 1.1 to the Registrant's Annual Report on Form 20-F for the year ended December 31, 1997).

4.14 Registrant's Non-Employee Director Share Option Plan 2000/3 (incorporated by reference to exhibit 4.5 to the Registrant's Registration Statement on Form S-8 No. 333-83204 ("Form S-8 No. 333-83204")).

4.15 Form of Grant Letter for Non-Employee Directors Share Option Plan 2001/4 (incorporated by reference to exhibit 4.9 to the Form S-8 No. 333-83204).

4.16 Form of Grant Letter for Non-Employee Directors Share Option Plan 2001/5 (incorporated by reference to exhibit 4.10 to the Form S-8 No. 333-83204).

4.17 Wafer Partner Conversion Agreements dated September 2001 between the Registrant and each of SanDisk, Alliance and Macronix (incorporated by reference to the correspondingly-numbered exhibit to the 2001 Form 20-F).

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4.18 Letter Agreement dated November 29, 2001 among SanDisk, Alliance, Macronix, QuickLogic and the Registrant regarding the Utilization of Prepayments (incorporated by reference to the correspondingly-numbered exhibit to the 2001 Form 20-F).

4.19 Letter Agreements among Alliance, Macronix, QuickLogic, ICTech and the Registrant and between SanDisk and the Registrant regarding Additional Wafer Partner Financing Date (incorporated by reference to the correspondingly-numbered exhibit to the 2001 Form 20-F).

4.20 Letter Agreement dated November 15, 2001 among SanDisk, Alliance, Macronix, QuickLogic, ICTech and the Registrant regarding Amendment to Financing Plan (incorporated by reference to the correspondingly-numbered exhibit to the 2001 Form 20-F).

4.21 First Amendment dated January 29, 2001 to the Facility Agreement (incorporated by reference to the correspondingly-numbered exhibit to the 2001 Form 20-F).

4.22 Second Amendment dated January 10, 2002 to Facility Agreement (incorporated by reference to the correspondingly-numbered exhibit to the 2001 Form 20-F).

4.23 Third Amendment dated March 7, 2002 to the Facility Agreement (incorporated by reference to the correspondingly-numbered exhibit to the 2001

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Form 20-F).

4.24 Joint Development and Transfer and Cross License Agreement dated as of May 2002 between the Registrant and Matsushita Industrial Electronic Co., Inc. (incorporated by reference to exhibit 10.3 to the Registrant's Registration Statement on Form F-2, No. 333-97043).

4.25 Technology License Agreement dated as of April 7, 2000 between the Registrant and Toshiba Corporation (incorporated by reference to exhibit 10.4 to the Registrant's Registration Statement on Form F-2, No. 333-97043).

4.26 Technology Transfer License Agreement, dated as of September 2002 between Registrant and Motorola, Inc. (incorporated by reference to exhibit 10.5 to the Registrant's Registration Statement on Form F-2, No. 333-97043).

4.27 Fourth Amendment dated April 29, 2002 to the Facility Agreement (incorporated by reference to the correspondingly-numbered exhibit to the 2002 Form 20-F).

4.28 Fifth Amendment dated September 18, 2002 to the Facility Agreement (incorporated by reference to the correspondingly-numbered exhibit to the 2002 Form 20-F).

4.29 Amendment to Fifth Amendment to the Facility Agreement dated October 22, 2002 to the Facility Agreement (incorporated by reference to the correspondingly-numbered exhibit to the 2002 Form 20-F).

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4.30 Letter Agreement dated March 2002 among SanDisk, Alliance, Macronix, ICTech and Challenge Fund to advance Third and Fourth Milestone Payments (incorporated by reference to the correspondingly-numbered exhibit to the 2002 Form 20-F).

4.31 Letter Agreement dated July, 2002 among SanDisk, Alliance, Macronix, and ICTech to exercise rights distributed in rights offering (incorporated by reference to the correspondingly-numbered exhibit to the 2002 Form 20-F).

4.32 Letter Agreement dated March 2003 among SanDisk, Alliance, Macronix, ICTech, and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2002 Form 20-F).

4.33 Form of Rights Agent Agreement between the Registrant and American Stock Transfer & Trust Company (including form of Rights Certificate) (incorporated by reference to exhibit 4.1 to the Registrant's Registration Statement on Form F-2, No. 333-97043).

4.34 Form of Warrant Agreement between the Registrant and American Stock Transfer & Trust Company (including form of Warrant Certificate) (incorporated by reference to exhibit 4.2 to the Registrant's Registration Statement on Form F-2, No. 333-97043).

4.35 Form of Commitment Letter from the Registrant's Shareholders, dated July 23, 2002, regarding participation in the Registrant's Rights Offering (incorporated by reference to exhibit 10.1 to the Registrant's Registration Statement on Form F-2, No. 333-97043).

4.36 Investment Center Agreement related to Fab 1, dated November 13, 2001 (English translation of Hebrew original) (incorporated by reference to exhibit

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10.2 to the Registrant's Registration Statement on Form F-2, No. 333-97043).

4.37 Development and License Agreement dated March 31, 2002 between Virage Logic Corporation and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2002 Form 20-F).

4.38 Master Services and License Agreement dated June 2002 between Artisan Components, Inc. and the Registrant (incorporated by reference to the correspondingly-numbered exhibit to the 2002 Form 20-F).

4.39 Seventh Amendment to the Facility Agreement dated November 11, 2003 (incorporated by reference to Exhibit 99.1 of the Registrant's Report on Form 6-K filed on December 17, 2003).

4.40 Undertaking of The Israel Corporation Ltd. dated November 11, 2003 (incorporated by reference to Exhibit 99.2 of the Registrant's Report on Form 6-K filed on December 17, 2003).

4.41 Undertaking of the Registrant dated November 11, 2003 (incorporated by reference to Exhibit 99.3 of the Registrant's Report on Form 6-K filed on December 17, 2003).

4.42 Letter Agreement dated November 11, 2003 by and among the Registrant, Israel Corporation Technologies, SanDisk Corporation, Alliance Semiconductor Corporation and Macronix International Co., Ltd. (incorporated by reference to Exhibit 99.4 of the Registrant's Report on Form 6-K filed on December 17, 2003).

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11.1 Code of Ethics.

12.1 Certification by Chief Executive Officer pursuant to section 302 of the Sarbanes-Oxley Act of 2002.

12.2 Certification by Chief Financial Officer pursuant to section 302 of the Sarbanes-Oxley Act of 2002.

13.1 Certification by Chief Executive Officer pursuant to section 906 of the Sarbanes-Oxley Act of 2002.

13.2 Certification by Chief Financial Officer pursuant to section 906 of the Sarbanes-Oxley Act of 2002.

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TOWER SEMICONDUCTOR LTD.  
AND SUBSIDIARY  
CONSOLIDATED FINANCIAL STATEMENTS  
AS OF DECEMBER 31, 2003

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, 2003 and 2002, 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, 2003. 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, 2003 and 2002, 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, 2003, 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

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America. The effect of the application of the latter on the financial position and results of operations as of the dates and for the years presented is summarized in Note 20.

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

Tel Aviv, Israel  
 February 2, 2004

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
 CONSOLIDATED BALANCE SHEETS  
 (DOLLARS IN THOUSANDS, EXCEPT SHARE DATA AND PER SHARE DATA)

	NOTE	----- 2 -----
A S S E T S		
CURRENT ASSETS		
CASH AND CASH EQUIVALENTS		\$
SHORT-TERM INTEREST-BEARING DEPOSITS		
CASH AND SHORT-TERM INTEREST-BEARING DEPOSITS DESIGNATED FOR INVESTMENTS RELATING TO FAB 2		
TRADE ACCOUNTS RECEIVABLE (NET OF ALLOWANCE FOR DOUBTFUL ACCOUNTS OF \$0 AND \$155, RESPECTIVELY)	15	
OTHER RECEIVABLES	3	
INVENTORIES	4	
OTHER CURRENT ASSETS		
TOTAL CURRENT ASSETS		----- 1 -----
LONG-TERM INVESTMENTS		
LONG-TERM INTEREST-BEARING DEPOSITS DESIGNATED FOR INVESTMENTS RELATING TO FAB 2		
OTHER LONG-TERM INVESTMENT	5	
PROPERTY AND EQUIPMENT, NET	6	----- 5 -----
OTHER ASSETS, NET	7	----- 1 -----
TOTAL ASSETS		===== \$ 7 =====
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES		

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SHORT-TERM DEBT	8	\$	
TRADE ACCOUNTS PAYABLE			
OTHER CURRENT LIABILITIES	9		-----
TOTAL CURRENT LIABILITIES			
LONG-TERM DEBT	10		4
CONVERTIBLE DEBENTURES	11		
OTHER LONG-TERM LIABILITIES	12		
LONG-TERM LIABILITY IN RESPECT OF CUSTOMERS' ADVANCES	13A		-----
TOTAL LIABILITIES			5
SHAREHOLDERS' EQUITY			-----
ORDINARY SHARES, NIS 1.00 PAR VALUE - AUTHORIZED 150,000,000 AND 70,000,000 SHARES, RESPECTIVELY; ISSUED 52,996,097 AND 44,735,532 SHARES, RESPECTIVELY	13A, 14		4
ADDITIONAL PAID-IN CAPITAL	13A		4
PROCEEDS ON ACCOUNT OF SHARE CAPITAL	13A		
SHAREHOLDER RECEIVABLES AND UNEARNED COMPENSATION			(2)
ACCUMULATED DEFICIT			-----
TREASURY STOCK, AT COST - 1,300,000 SHARES	14C		2
TOTAL SHAREHOLDERS' EQUITY			-----
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		\$	=====
			7
			=====

SEE NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
CONSOLIDATED STATEMENTS OF OPERATIONS  
(DOLLARS IN THOUSANDS, EXCEPT SHARE DATA AND PER SHARE DATA)

	Note		Year end
	-----		-----
SALES	13D, 15	\$	2003 ----- 61,368
COST OF SALES	6A(4)		122,395
GROSS LOSS			----- (61,027)

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OPERATING COSTS AND EXPENSES			-----
RESEARCH AND DEVELOPMENT			20,709
MARKETING, GENERAL AND ADMINISTRATIVE			22,615
			-----
			43,324
			=====
OPERATING LOSS			(104,351)
FINANCING INCOME (EXPENSE), NET	16		(9,826)
OTHER INCOME (EXPENSE), NET	5B, 5D		(84)
			-----
LOSS FOR THE YEAR			\$ (114,261)
			=====
BASIC LOSS PER ORDINARY SHARE			
LOSS PER SHARE			\$ (2.40)
			=====
LOSS USED TO COMPUTE			
BASIC LOSS PER SHARE			\$ (114,114)
			=====
WEIGHTED AVERAGE NUMBER OF ORDINARY			
SHARES OUTSTANDING - IN THOUSANDS			47,608
			=====

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)

	ORDINARY SHARES		ADDITION
	SHARES	AMOUNT	PAID-IN CAPITAL
	-----	-----	-----
BALANCE - JANUARY 1, 2001	13,562,606	\$ 4,404	\$ 144,
ISSUANCE OF SHARES,			
NET OF RELATED COSTS	11,930,675	2,850	147,
EXERCISE OF A WARRANT	772,667	187	9,
EXERCISE OF SHARE OPTIONS	31,154	7	
CANCELLATION OF UNEARNED COMPENSATION			
IN RESPECT OF NON-VESTED OPTIONS, NET			
STOCK-BASED COMPENSATION RELATED TO THE			
FACILITY AGREEMENT WITH THE BANKS, NOTE 14B(5)			5,

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AMORTIZATION OF UNEARNED COMPENSATION  
LOSS FOR THE YEAR

BALANCE - DECEMBER 31, 2001	26,297,102	\$ 7,448	\$ 307,
ISSUANCE OF SHARES, NET OF RELATED COSTS	18,438,430	3,846	92,
AMORTIZATION OF UNEARNED COMPENSATION LOSS FOR THE YEAR			
BALANCE - DECEMBER 31, 2002	44,735,532	\$ 11,294	\$ 400,

STOCK-BASED COMPENSATION RELATED TO THE FAB 2 CONSTRUCTOR			
STOCK-BASED COMPENSATION RELATED TO THE FACILITY AGREEMENT WITH THE BANKS, NOTE 14B(5)			4,
ISSUANCE OF SHARES, NET OF RELATED COSTS	8,260,565	1,856	22,
PROCEEDS ON ACCOUNT OF SHARE CAPITAL			
AMORTIZATION OF UNEARNED COMPENSATION LOSS FOR THE YEAR			
BALANCE - DECEMBER 31, 2003	52,996,097	\$ 13,150	\$ 427,

	SHAREHOLDER RECEIVABLES AND UNEARNED COMPENSATION	ACCUMULATED DEFICIT	TREASURY STOCK
	-----	-----	-----
BALANCE - JANUARY 1, 2001	\$ (493)	\$ (14,719)	\$ (9,072)
ISSUANCE OF SHARES, NET OF RELATED COSTS			
EXERCISE OF A WARRANT			
EXERCISE OF SHARE OPTIONS			
CANCELLATION OF UNEARNED COMPENSATION IN RESPECT OF NON-VESTED OPTIONS, NET	15		
STOCK-BASED COMPENSATION RELATED TO THE FACILITY AGREEMENT WITH THE BANKS, NOTE 14B(5)			
AMORTIZATION OF UNEARNED COMPENSATION LOSS FOR THE YEAR	283	(38,522)	
BALANCE - DECEMBER 31, 2001	\$ (195)	\$ (53,241)	\$ (9,072)
ISSUANCE OF SHARES, NET OF RELATED COSTS			
AMORTIZATION OF UNEARNED COMPENSATION LOSS FOR THE YEAR	142	(51,402)	
BALANCE - DECEMBER 31, 2002	\$ (53)	\$ (104,643)	\$ (9,072)

STOCK-BASED COMPENSATION RELATED TO  
THE FAB 2 CONSTRUCTOR



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STOCK-BASED COMPENSATION RELATED TO THE FACILITY AGREEMENT WITH THE BANKS, NOTE 14B(5) ISSUANCE OF SHARES, NET OF RELATED COSTS PROCEEDS ON ACCOUNT OF SHARE CAPITAL AMORTIZATION OF UNEARNED COMPENSATION	27	(114,261)	
LOSS FOR THE YEAR	-----	-----	-----
BALANCE - DECEMBER 31, 2003	\$ (26) =====	\$ (218,904) =====	\$ (9,072) =====

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)

CASH FLOWS - OPERATING ACTIVITIES	20
LOSS FOR THE YEAR	\$ (11)
ADJUSTMENTS TO RECONCILE LOSS FOR THE YEAR	
TO NET CASH PROVIDED BY (USED IN) OPERATING ACTIVITIES:	
INCOME AND EXPENSE ITEMS NOT INVOLVING CASH FLOWS:	
DEPRECIATION AND AMORTIZATION	5
DEVALUATION OF CONVERTIBLE DEBENTURES	
OTHER EXPENSE (INCOME), NET	
CHANGES IN ASSETS AND LIABILITIES:	
DECREASE (INCREASE) IN TRADE ACCOUNTS RECEIVABLE	(
DECREASE (INCREASE) IN OTHER RECEIVABLES AND OTHER CURRENT ASSETS	(
DECREASE (INCREASE) IN INVENTORIES	(
INCREASE (DECREASE) IN TRADE ACCOUNTS PAYABLE	
INCREASE (DECREASE) IN OTHER CURRENT LIABILITIES	
INCREASE IN OTHER LONG-TERM LIABILITIES	-----
	(6
INCREASE (DECREASE) IN LONG-TERM LIABILITY IN RESPECT OF CUSTOMERS' ADVANCES	-----
	(6
NET CASH PROVIDED BY (USED IN) OPERATING ACTIVITIES	-----
CASH FLOWS - INVESTING ACTIVITIES	
DECREASE (INCREASE) IN CASH, SHORT-TERM AND LONG-TERM INTEREST-BEARING	

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DEPOSITS DESIGNATED FOR INVESTMENTS RELATING TO FAB 2	1
INVESTMENTS IN PROPERTY AND EQUIPMENT	(17)
INVESTMENT GRANTS RECEIVED	3
PROCEEDS FROM SALE OF EQUIPMENT	
INVESTMENTS IN OTHER ASSETS	(2)
DECREASE (INCREASE) IN DEPOSITS, NET	1
PROCEEDS FROM SALE OF LONG-TERM INVESTMENTS	
	-----
NET CASH USED IN INVESTING ACTIVITIES	(14)
	-----
CASH FLOWS - FINANCING ACTIVITIES	
PROCEEDS FROM ISSUANCE OF SHARES, NET	2
PROCEEDS FROM EXERCISE OF SHARE OPTIONS	
PROCEEDS ON ACCOUNT OF SHARE CAPITAL	1
PROCEEDS ON ACCOUNT OF AN EXERCISE OF A WARRANT	
INCREASE (DECREASE) IN SHORT-TERM DEBT	
REPAYMENT OF LONG-TERM DEBT	(1)
PROCEEDS FROM LONG-TERM DEBT, NET IN CONNECTION WITH RE-BORROWING, NOTE 13A(6)	18
PROCEEDS FROM LONG-TERM DEBT	
PROCEEDS FROM SALE OF SECURITIES, NET	
	-----
NET CASH PROVIDED BY FINANCING ACTIVITIES	21
	=====
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	
CASH AND CASH EQUIVALENTS - BEGINNING OF YEAR	
	-----
CASH AND CASH EQUIVALENTS - END OF YEAR	\$ 1
	=====
NON-CASH ACTIVITIES	
INVESTMENTS IN PROPERTY AND EQUIPMENT	\$ 1
	=====
EXERCISE OF A WARRANT	
STOCK-BASED COMPENSATION RELATED TO THE FACILITY AGREEMENT WITH THE BANKS	\$
	=====
INVESTMENTS IN OTHER ASSETS	\$
	=====
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION	
CASH PAID DURING THE YEAR FOR CAPITALIZED AND EXPENSED INTEREST	\$ 1
	=====
CASH PAID DURING THE YEAR FOR INCOME TAXES	\$
	=====

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)

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### 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 foundry dedicated to the manufacture of semiconductor integrated circuits on silicon wafers. The Company manufactures integrated circuits in geometries from 1.0 to 0.35 microns at its 150-millimeter fabrication facility ("Fab 1"), and 0.18 micron at its recently-constructed 200-millimeter fabrication facility ("Fab 2"). As a foundry, the Company manufactures wafers using its advanced technological capabilities and the proprietary integrated circuit designs of its customers.

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 and in 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 designed to manufacture semiconductor integrated circuits on silicon wafers in geometries of 0.18 micron and below on 200-millimeter wafers. The Company has entered into several related agreements and other arrangements and completed public and rights offerings all in connection with Fab 2 to provide, as of the approval date of the financial statements, an aggregate of \$1,220,000 of financing for Fab 2. For further details concerning the related agreements, which were amended several times, see Note 13A.

During the third quarter of 2003, in which Fab 2 was substantially completed, the Company begun commercial production and shipment of wafers to its customers utilizing the 0.18 micron process technology. With the commencement of Fab 2 operations, the Company begun to depreciate and amortize Fab 2 assets, as well as to expense most of the direct costs related to the construction and equipping of Fab 2 and to the transfer of the Fab 2 technology that had been previously capitalized. For further details concerning the depreciation and amortization of Fab 2 assets, see Note 6A.

The Fab 2 project is a complex undertaking which entails substantial risks and uncertainties. For further details concerning the Fab 2 project and related 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.

TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
(dollars in thousands, except share data and per share data)

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 reconciliation of 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, after elimination of material inter-company transactions and balances. The effect of the subsidiary's operations on the Company's revenues and total assets was immaterial for the dates and periods presented.

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 weighted moving average cost per unit. Cost is determined for work in process and finished goods on the basis of actual production costs.

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 (whether performed by others or by the Company); and costs directly related to preproduction test runs of property and equipment that

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are necessary to get them ready for their intended use. Those costs include payroll and payroll-related costs of employees who devote time and are dedicated solely to the acquiring, constructing, establishing and installing property and equipment. Allocation, when appropriate, of capitalizable direct costs is based on management's estimates and methodologies including time sheet inputs.

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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 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

F. PROPERTY AND EQUIPMENT (cont.)

(1) (cont.)

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

- (2) Impairment examinations and recognition are performed and determined based on the accounting policy outlined in P below.

G. OTHER ASSETS

The cost of Fab 2 technologies presented in other assets includes the technology process cost, 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 are amortized over the expected estimated economic life of the technologies. Amortization phases in commencing on the dates on which each of the Fab 2 manufacturing lines is ready for their intended use, and is based on the straight-line method over a four-year period.

Deferred financing charges included in other assets in relation to funding the establishment of Fab 2, are being amortized over the lives of the borrowings based on the repayment schedule of such funding (in general, 6 to 8 years). During the establishment period of Fab 2, amortized deferred financing charges were capitalized to property and equipment. Commencing the third quarter of 2003, in which the building and infrastructures of Fab 2 were substantially completed and became ready for their intended use, and in which the initial ramp-up

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commenced, the deferred financing charges are being amortized to the financing expenses, net.

Impairment examinations and recognition are performed and determined based on the accounting policy outlined in P below.

### 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, net of discount. See Note 20E for disclosure of convertible debentures in accordance with U.S. GAAP.

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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 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

#### 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. 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

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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 during each year presented. The calculation includes retroactive effect from the beginning of each year of shares issued upon exercise of options and warrants ("Exercise") and upon conversion of convertible debentures ("Conversion"), outstanding at the beginning of each year and giving effect to shares issuable from probable Exercise and from probable Conversion. Basic loss per ordinary share is calculated based on loss for the year with the inclusion of imputed interest income on the exercise price of options and warrants exercised or of probable Exercise, and of financing expenses in relation to converted debentures or on probable Conversion, as required under Israeli GAAP. See Note 20J for disclosure of loss per share data in accordance with U.S. GAAP.

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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 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

#### 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 or the commitment, while gains and losses subsequent thereto, through the date of agreement expiration, are included in financing income (expense), net.

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 in the same manner as the corresponding interest costs.

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 income (expenses), net in 2003, 2002 and 2001 include net

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foreign currency transaction loss of \$232, \$1,509 and \$263, respectively.

### O. STOCK-BASED COMPENSATION

The Company accounts for employee and director 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 warrants granted in connection with bank financing is amortized as deferred financing charges over the terms of the loans, in a manner described in paragraph G above. The award cost of warrants granted in connection with the construction of Fab 2, is recorded as depreciation expense over the life of the prepaid perpetual land lease and buildings. The award cost of warrants granted to consultants and related party in connection with equity transactions is offset against paid-in-capital.

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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 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

#### P. IMPAIRMENT OF LONG-LIVED ASSETS

Management reviews long-lived assets on a periodic basis, as well as when such a review is required based upon relevant circumstances, to determine whether events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. According to the Israeli Accounting Standards Board No.15, "Impairment of Assets", 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 in January 2003, the Company tested the recoverability of its assets based on undiscounted expected cash flows, as applicable by U.S. GAAP, a method that under Standard No. 15 is no longer acceptable. As of December 31, 2003 no impairment was recognized.



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### Q. RECENT ACCOUNTING PRONOUNCEMENTS BY THE FASB

- (1) SFAS NO. 149 - 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 on the Company's financial position or results of operations under U.S. GAAP.
- (2) 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 (as defined in that guidance) 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 activities for financial instruments entered into at the beginning of the third quarter of 2003. See Note 20F for disclosure of proceeds on account of share capital in accordance with U.S. GAAP under SFAS 150.
- (3) SAB-104 - REVENUE RECOGNITION - In December 2003, the Securities and Exchange Commission ("SEC") issued Staff Accounting Bulletin 104 ("SAB-104") - Revenue Recognition. This SAB revises or rescinds portions of the interpretative guidance included in Topic 13 of the codification of staff accounting bulletins in order to make this interpretive guidance consistent with current authoritative accounting guidance. The principal revisions relate to the rescission of material no longer necessary because of developments outside of the SEC in U.S. generally accepted accounting principles, and the incorporation of certain sections of the SEC's "Revenue Recognition in Financial Statements - Frequently Asked Questions and Answers" document into Topic 13. The adoption of SAB-104 had no impact on the Company's financial position and results of operations.

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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 3 - OTHER RECEIVABLES

Other receivables consist of the following:

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	As of December 31,	
	2003	2002
	----	----
Government of Israel - investment grants receivable	\$ 8,143	\$14,200
Other government agencies	2,655	5,025
Others	275	2,097
	-----	-----
	\$11,073	\$21,322
	=====	=====

NOTE 4 - INVENTORIES

Inventories consist of the following (\*):

	As of December 31,	
	2003	2002
	----	----
Raw materials	\$ 5,736	\$ 3,815
Spare parts and supplies	3,341	3,509
Work in process	9,520	2,860
Finished goods	785	17
	-----	-----
	\$19,382	\$10,201
	=====	=====

(\*) Net of write-downs to net realizable value of \$1,228 and \$307 as of December 31, 2003 and 2002, respectively.

NOTE 5 - OTHER LONG-TERM INVESTMENTS

- A. 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, 2003 and 2002 amounted to \$6,000, representing 11.8% of Saifun's share capital as of such dates (on a fully-diluted basis - 10.3% and 10.5%, 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 14.9% of Azalea's share capital as of December 31, 2003. 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 wrote off,

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during the third quarter of 2001, its entire investment in Azalea.

- C. Under certain provisions stipulated in the amended Facility Agreement entered into by the Company in connection with Fab 2 (see Note 13A(6)), the Company might be obliged to dispose of some or all its long-term investments, in order to comply with that agreement's financing requirements. For liens, see Note 13A(6).
- 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 chips.

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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 6 - PROPERTY AND EQUIPMENT, NET

A. COMPOSITION

	As of December 31,	
COST:	2003	2002
Prepaid perpetual land lease and buildings	\$225,218	\$215,240
Machinery and equipment	555,989	440,048
Transportation vehicles	3,683	4,198
	784,890	659,486
ACCUMULATED DEPRECIATION AND AMORTIZATION:		
Prepaid perpetual land lease and buildings	20,698	13,215
Machinery and equipment	193,682	151,191
Transportation vehicles	2,098	2,006
	216,478	166,412
	\$568,412	\$493,074

SUPPLEMENTAL DISCLOSURE RELATING TO COST OF PROPERTY AND EQUIPMENT:

- (1) As of December 31, 2003 and 2002, the cost of property and equipment included costs relating to Fab 2 in the amount of \$560,304 and \$434,421, respectively. Said amounts are net of investment grants of \$126,226 and \$99,365, respectively. Depreciation of Fab 2 assets commenced in the third quarter of 2003, in which the building and infrastructures of Fab 2 were substantially completed and became ready for their intended use.

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- (2) As of December 31, 2003, the cost of buildings, machinery and equipment was reflected net of investment grants of \$232,187 (as of December 31, 2002 - \$205,390).
- (3) Cost of property and equipment as of December 31, 2003 includes capitalized interest costs of \$18,480 (as of December 31, 2002 - \$11,588).
- (4) Following the commencement of operations of Fab 2, in the third quarter of 2003, the Company began to depreciate and amortize Fab 2 property and equipment and other assets, resulting in depreciation and amortization expenses of \$37,302 which were included in cost of sales of 2003.

### B. INVESTMENT GRANTS

In connection with the formation of the Company, the Investment Center of the Ministry of Industry and Trade of the State of Israel ("Investment Center"), under its "approved enterprise" program, approved an investment program for expenditures on buildings and equipment in Fab 1 in the aggregate amount (as amended) of approximately \$96,850. The Company completed its investments under this program, and received final approval from the Investment Center in November 1997.

In January 1996, an investment program ("1996 program") for expansion of Fab 1 in the aggregate amount (as amended in December 1999 and 2001) of \$228,680 was approved by the Investment Center. The approval certificate provides for a benefit track entitling the Company to investment grants at a rate of 34% of the investments included in such certificate made through December 31, 2001. The Company completed its investments under the 1996 program in December 2001 and invested through such date approximately \$207,000. In May 2002, the Company submitted the final report in relation to the 1996 program. As of December 31, 2003, the report has not yet received a final approval from the Investment Center.

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
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### NOTE 6 - PROPERTY AND EQUIPMENT, NET (cont.)

#### B. INVESTMENT GRANTS (cont.)

See Note 13A(8) with respect to the Fab 2 program approved by the Investment Center in December 2000.

Entitlement to the above grants and other tax benefits is subject to various conditions stipulated by the Investments Law and the regulations promulgated thereunder, as well as the criteria set forth in the certificates of approval. In the event the Company fails to comply with such conditions, the Company may be required to repay all or a portion of the grants received plus interest and certain inflation adjustments. In order to secure fulfillment of the conditions related to the receipt of investment grants, floating liens were registered in favor of the State of Israel on substantially all

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assets of the Company.

C. For liens see Note 13A(6).

### NOTE 7 - OTHER ASSETS

Other assets consist of the following:

	As of December 31,	
	2003	2002
	-----	-----
<b>COST:</b>		
In relation to Fab 2:		
Technologies - Note 13A(2)	\$ 90,747	\$ 78,572
Deferred financing charges	20,864	14,322
Other	3,001	3,052
Other	--	29
	-----	-----
	114,612	95,975
	-----	-----
<b>ACCUMULATED AMORTIZATION:</b>		
In relation to Fab 2 (*):		
Technologies	2,793	--
Deferred financing charges	3,049	762
Other	--	--
Other	--	--
	-----	-----
	5,842	762
	=====	=====
	\$108,770	\$ 95,213
	=====	=====

(\* ) For amortization policy, see Note 2G.

### NOTE 8 - SHORT-TERM DEBT

The short-term debt as of December 31, 2002 consisted of current maturities of long-term debt (see Note 10A).

### NOTE 9 - OTHER CURRENT LIABILITIES

Other current liabilities consist of the following:

	As of December 31,	
	2003	2002
	-----	-----
Accrued salaries	\$3,579	\$2,858
Vacation accrual	3,474	2,910
Interest payable on convertible debentures	1,168	1,101
Other	1,343	1,202
	-----	-----

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\$9,564    \$8,071  
 =====    =====

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
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NOTE 10 - LONG-TERM DEBT

A. COMPOSITION:

	Effective interest rate as of December 31, 2003 -----	As of December 31, -----	
		2003 ----	2002 ----
In U.S. Dollar	6.78%	\$ 172,000	\$ 172,000
In U.S. Dollar	3.69%	259,000	85,000
		-----	-----
Total long-term debt		431,000	257,000
Less - current maturities		--	4,000
		-----	-----
		\$ 431,000	\$ 253,000
		=====	=====

B. Loans received under the Facility Agreement bear interest based on the three-month USD Libor rate plus 2.5%, as revised under the amendment to the Facility Agreement described in more detail in Note 13A(6). Prior to the closing of this amendment on December 2003, the loans bore interest based on the three-month USD Libor rate plus 1.55%. The effective annual interest rate of loans, the amount of which as of December 31, 2003 was \$172,000, includes the terms of collar agreements with a knock-out feature described in Note 18A. Interest is payable at the end of each quarter.

C. For additional information regarding the Facility Agreement, as amended, between the Company and the Banks for financing the construction and equipping of Fab 2 including re-borrowing terms, see Note 13A(6).

Of the total amount of the long-term debt as of December 31, 2002, \$13,000 was designated for the Company's activities related to Fab 1, and was fully repaid during 2003, resulting in the termination of the Fab 1 facility agreement.

D. REPAYMENT SCHEDULE

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The balance of the long-term debt as of December 31, 2003 is repayable according to the November 2003 amendment to the Facility Agreement as follows:

2007	\$ 143,667
2008 and thereafter	287,333
	-----
	\$ 431,000
	=====

- E. The agreement with the Company's Banks restricts the Company's ability to place liens on its assets (other than to the State of Israel in respect of investment grants) without the prior consent of the Banks. Furthermore, the agreements contain certain restrictive financial covenants (see also Note 13A(6)). As of December 31, 2003, in management's opinion the Company was in full compliance with such covenants.

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
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### NOTE 11 - CONVERTIBLE DEBENTURES

In January 2002, the Company issued on the Tel-Aviv Stock Exchange, NIS 110,579,800 principal amount of convertible debentures, linked to the Israeli Consumer Price Index ("CPI") (adjusted to the CPI as of December 31, 2003 - NIS 115,775,760, \$26,439). The debentures were issued at 96% of their par value, and bear annual interest at the rate of 4.7%, payable in January of each year commencing in January 2003. The principal amount is payable in four installments in January of each year between 2006 and 2009. The debentures may be converted until December 31, 2008 into Ordinary Shares, at a conversion rate of one Ordinary Share per each NIS 41.00 principal amount of the debentures, linked to the CPI (subject to customary adjustments) (adjusted to the CPI as of December 31, 2003 - NIS 42.93, \$9.80). The effective rate of interest on the convertible debentures, taking into account the initial proceeds, net of the discount and the related costs of issuance, is 7.26%. For U.S. GAAP purposes, which require taking into account, in addition to the discount and the related issuance costs, amounts attributed to the options described in Note 14E, the effective rate of interest on the convertible debentures is 9.88%.

Subject to certain conditions, the Company may, commencing in July 2005, announce the early redemption of the debentures or part thereof, provided that the sum of the last payment on account of the principal shall be no less than approximately \$700.

If on a payment date of the principal or interest on the debentures there exists an infringement of certain covenants and conditions under the Facility Agreement, the dates for payment of interest and principal on the debentures may be postponed, depending on various scenarios under the Facility Agreement until such covenant or condition is settled.

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Pursuant to a covenant in the amended Facility Agreement, the Company is to deposit at least 20% of the principal amount (net of discounts) of the unconverted debentures in favor of the Banks as security for payment of the amounts the Company owes the Banks. The deposited amounts may be released only as provided in the amended Facility Agreement, including for payment of interest on the convertible debentures.

The debentures are unsecured and rank behind the Company's existing and future secured indebtedness to the Banks under the Facility Agreement, as well as to the government of Israel in connection with grants the Company receives under the Fab 2 approved enterprise program.

See Note 20E for disclosure of the accounting treatment of the convertible debentures under U.S. GAAP.

### NOTE 12 - OTHER LONG-TERM LIABILITIES

#### A. COMPOSITION

	As of December 31,	
	2003	2002
	----	----
Net liability for employee termination benefits (see B below):		
Gross obligation	\$ 19,042	\$ 16,274
Amounts funded through deposits to severance pay funds and purchase of insurance policies	(14,607)	(12,368)
	4,435	3,906
Other	1,500	1,500
	\$ 5,935	\$ 5,406

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
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### NOTE 12 - OTHER LONG-TERM LIABILITIES (cont.)

#### B. EMPLOYEE TERMINATION BENEFITS

Israeli law and labor agreements determine the obligations of the Company to make severance payments to dismissed employees and to employees leaving employment under certain other circumstances. The liability for severance pay benefits, as determined by Israeli Law, is based upon length of service and the employee's most recent monthly salary. This liability is primarily covered by regular deposits made by the Company into recognized severance and pension funds and by



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insurance policies purchased by the Company. The amounts so funded are not reflected on the balance sheets, since they are controlled by the fund trustees and insurance companies and are not under the control and management of the Company. For presentation of employees' termination benefits in accordance with U.S GAAP, see Note 20B.

Costs relating to employee termination benefits were approximately \$2,828, \$2,070 and \$4,379 for 2003, 2002 and 2001, respectively.

### NOTE 13 - COMMITMENTS AND CONTINGENCIES

#### A. COMMITMENTS AND CONTINGENCIES RELATING TO FAB 2

##### (1) OVERVIEW

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 designed to manufacture semiconductor integrated circuits on silicon wafers in geometries of 0.18 micron and below on 200-millimeter wafers. The Company entered into several related agreements and other arrangements, and completed public and rights offerings, in connection with Fab 2, including agreements and arrangements with technology partners, Wafer Partners, Equity Investors, the Company's Banks, the Government of Israel through the Investment Center and others, to provide an aggregate, as of the approval date of the financial statements, of \$1,220,000 of financing for Fab 2. The agreements with the Banks and the Investment Center are subject to certain conditions, including the achievement of performance and financing milestones, and the securing of additional required financing. The Company has also entered into agreements for the design and construction of Fab 2, for equipping Fab 2 and for the transfer to the Company of the process technologies to be utilized to produce wafers in Fab 2.

Through December 31, 2003 the Company has invested in the Fab 2 project an aggregate of approximately \$900,000. Through such date, the Wafer Partners, Equity Investors and technology partners had invested in the Company through committed agreements an aggregate of \$306,823 (\$47,246 of which was established as long-term customers' advances); the Banks had made long-term loans in the aggregate of \$431,000; and the Investment Center granted the Company an aggregate of \$118,011. In addition, through December 31, 2003, the Company has raised approximately \$86,600 from other financial sources, and in January 2004, the Company raised additional \$77,000 in connection with the public offering described in Note 14G.

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### NOTE 13 - COMMITMENTS AND CONTINGENCIES (cont.)

#### A. COMMITMENTS AND CONTINGENCIES RELATING TO FAB 2 (cont.)

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### (1) OVERVIEW (cont.)

During the third quarter of 2003, the Company began commercial production and shipment of wafers to its customers utilizing the 0.18 micron process technology. With the commencement of Fab 2 operations, most of the direct costs related to the construction and equipping of Fab 2 and to the transfer of the Fab 2 technology that previously had been capitalized, are no longer capitalizable. For the depreciation and amortization amounts in 2003 of Fab 2 assets, see Note 6A.

The construction and equipping of Fab 2 is a substantial project, which requires extensive management involvement as well as the timely participation by and coordination of the activities of many participants. In addition, this project is a complex undertaking which entails substantial risks and uncertainties, including but not limited to those associated with the following: obtaining additional commitments to finance the construction and equipping of Fab 2; achieving certain operational milestones and complying with various conditions and covenants under the current financing agreements in order to receive the additional funds committed by the Investment Center, as well as those provided by the Facility Agreement with the Banks, which establishes significant additional conditions and covenants for borrowing loans under the Facility Agreement; and completing the complex processes of transferring from Motorola the manufacturing technologies to be used at Fab 2 and development of new technologies. According to the Facility Agreement with the Banks, raising certain required additional funding by the dates specified, achieving the milestones as scheduled, as well as complying with all the conditions and covenants stipulated in that agreement and in the Approval Certificate from the Investment Center, are material provisions for providing the Company with the required financing for completing and equipping Fab 2. As of December 31, 2003 the construction and equipping of Fab 2 is currently in process and, progressing according to the revised agreed upon schedule.

### (2) TECHNOLOGY TRANSFER AGREEMENTS

TOSHIBA - In April 2000, the Company entered into a technology transfer agreement with Toshiba Corporation ("Toshiba"), a Japanese corporation. This agreement provides for the transfer by Toshiba to the Company of advanced semiconductor manufacturing process technologies installed in Fab 2 including related technology transfer assistance in exchange for certain fees for patent licenses, technology transfer and technical assistance and ongoing royalties based on sales of products manufactured in Fab 2 with the transferred technology. The transfer of the technology was substantially completed during the first half of 2003. Under the Toshiba agreement, the Company agreed, subject to certain conditions, to reserve for Toshiba a certain portion of Fab 2 wafer manufacturing capacity for a period of 10 years.

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### NOTE 13 - COMMITMENTS AND CONTINGENCIES (cont.)

#### A. COMMITMENTS AND CONTINGENCIES RELATING TO FAB 2 (cont.)

##### (2) TECHNOLOGY TRANSFER AGREEMENTS (cont.)

MOTOROLA - In September 2002, the Company entered into a non-exclusive technology transfer, development and licensing agreement with Motorola Inc. ("Motorola"), a U.S. corporation. This agreement provides for the transfer by Motorola to the Company of existing and newly developed versions of advanced semiconductor manufacturing process technologies to be installed in Fab 2, and for the provision by Motorola of related technology transfer assistance, all in exchange for certain fees for patent and other intellectual property licenses, technology transfer and development, technical assistance and ongoing royalties based on sales of products to be manufactured in Fab 2 with the transferred technology. Subject to prior termination for cause by Motorola, the licenses under the agreement are perpetual.

##### (3) WAFER PARTNER AGREEMENTS

During 2000, the Company entered into various share purchase agreements ("Wafer Partner Agreements") with SanDisk Corporation, Alliance Semiconductor Corporation, Macronix International Co., Ltd. and QuickLogic Corporation (collectively, the "Wafer Partners"; excluding QuickLogic, the "primary Wafer Partners") to partially finance the construction and equipping of Fab 2. Pursuant to the Wafer Partner Agreements, the Wafer Partners agreed to invest an aggregate of \$250,000 to purchase Ordinary Shares of the Company, over a period of time, subject to the achievement of certain milestones relating to the construction and operation of Fab 2. According to the Wafer Partner Agreements, the Company agreed, subject to certain conditions, to reserve for each Wafer Partner a certain portion, and collectively approximately 50%, of Fab 2 wafer manufacturing capacity for a period of 10 years.

Through December 31, 2003, the Wafer Partners invested in the Company, based on the Wafer Partners Agreements, an aggregate of \$246,823, of which \$199,577 was credited as paid in capital and \$47,246 was established as long-term customers' advances which may be, subject to the terms and conditions stipulated in the Wafer Partner Agreements, as amended, utilized as credit against purchases to be made by the Wafer Partners, or converted into paid-in-capital. Through December 31, 2003, the Wafer Partners were issued an aggregate of 24,239,879 Ordinary Shares in consideration for their aggregate committed investment of \$233,622. In January 2004, the primary Wafer Partners were issued additional 1,885,833 Ordinary Shares in consideration for their final \$13,201 committed investment made in December 2003, at a per share price equal to the offering price of the public offering described in Note 14G. The \$13,201 amount is presented on the face of the balance sheet as of December 31, 2003 as proceeds on account of share capital. For the classification of that amount under U.S. GAAP, see Note 20F.

For additional investments made by the Wafer Partners in connection with a rights offering, see Note 14F.

In addition to the Wafer Partner Agreements, in January 2002, the

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Company entered into a share purchase agreement with another wafer partner, pursuant to which that wafer partner invested \$2,000 in Fab 2 for the purchase of 332,945 Ordinary Shares of the Company. The shares were issued in January 2002.

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NOTE 13 - COMMITMENTS AND CONTINGENCIES (cont.)

A. COMMITMENTS AND CONTINGENCIES RELATING TO FAB 2 (cont.)

(4) EQUITY INVESTOR AGREEMENTS

Through December 31, 2003, Israel Corporation Technologies (IC-Tech) Ltd., a wholly owned subsidiary of Israel Corporation Ltd. and the principal shareholder of the Company ("IC-Tech") and Challenge Fund-Edgar II LP, a Delaware limited partnership ("Challenge") (all together, "Equity Investors") invested in the Company, pursuant to agreements described below, an aggregate of \$51,773, for the purchase of an aggregate of 6,958,882 Ordinary Shares of the Company. In January 2004, IC-Tech and Challenge were issued additional 460,953 Ordinary Shares of the Company in consideration for their final investments according to their agreements in the amount of \$3,227 made in December 2003. The shares were issued at a per share price equal to the price at the public offering described in Note 14G. The \$3,227 amount is presented on the face of the balance sheet as of December 31, 2003 as proceeds on account of share capital. For the classification of that amount under U.S. GAAP, see Note 20F.

In December 2000, the Company entered into a share purchase agreements pursuant to which IC-Tech agreed to invest \$50,000 to purchase Ordinary Shares of the Company over a period of time in several mandatory closings contemporaneous with the closings under the Wafer Partner Agreements and subject to the achievement of the same milestones. For additional investments made by IC-Tech in connection with a rights offering, see Note 14F. For additional investments which IC-Tech or the Israel Corporation Ltd. may be required to make in the Company, see A(6) below.

In February 2001, the Company entered into a share purchase agreement with Challenge pursuant to which Challenge agreed to invest \$5,000 in Fab 2 for the purchase of Ordinary Shares of the Company under terms substantially similar to those under the Company's share purchase agreements with IC-Tech.

In July 2002, the Company entered into a definitive agreement with Ontario Teachers' Pension Plan Board for an investment, which was fully paid in October 2002, of \$15,000 in the Company's equity in consideration for 3,000,000 Ordinary Shares of the Company for \$5.00 per share (the same as the subscription price per right in the rights offering described in Note 14F), and a warrant, exercisable for a four-year period ending in October 2006, to purchase an additional 1,350,000 Ordinary Shares of the Company, at an exercise price of \$7.50 per share (subject to

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customary adjustments).

### (5) AMENDMENTS TO THE PRIMARY WAFER PARTNER AND EQUITY INVESTOR AGREEMENTS

The agreements between the Company and its primary Wafer Partners and Equity Investors have been amended several times since they were originally signed. The major terms of the amendments, including those recently made in the fourth quarter of 2003, relate to: advancing the milestone installments regardless of their achievements; updating the price per share of each advanced installment to be based on the average closing sale price of the Company's Ordinary Shares for the 15-30 trading days prior to making any installment; and granting the Company with a waiver in connection with the requirement to raise a cumulative of \$50,000 from new wafer partners. The Company's shareholders approved all these amendments.

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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 13 - COMMITMENTS AND CONTINGENCIES (cont.)

##### A. COMMITMENTS AND CONTINGENCIES RELATING TO FAB 2 (cont.)

### (5) AMENDMENTS TO THE PRIMARY WAFER PARTNER AND EQUITY INVESTOR AGREEMENTS (cont.)

Following the approval of the fourth quarter of 2003 amendment by the Company's shareholders, and obtaining in November 2003 an agreement with the Banks for amending the Facility Agreement as outlined in paragraph A(6) below, the primary Wafer Partners and Equity Investors completed their committed investments.

Pursuant to an amendment to the primary Wafer Partner Agreements entered into in the first quarter of 2003 and approved by the Company's shareholders in May 2003, the primary Wafer Partners are entitled to convert an aggregate of up to \$13,201 of the unutilized long-term customers' advances, which they may have as of December 31, 2005, into fully-paid Ordinary Shares of the Company, the amount of which shall be determined based on the average closing sale price of the Company's Ordinary Shares for the 15 trading days prior to such date. The option is exercisable during January 2006. In case such conversion occurs and the amount of shares issued is equivalent to or greater than 5% of the Company's outstanding share capital as of the conversion date, the Company has undertaken to offer to all of its other shareholders rights to purchase shares of the Company at the same price per share.

Pursuant to the fourth quarter of 2003 amendment, the Company granted each one of the primary Wafer Partners an option to convert, at the end of each quarter of the years 2004-2006, any amount that may be utilized against the long-term customers' advances, as derived from purchases made by each primary Wafer Partner during that quarter, into fully-paid Ordinary Shares of

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the Company. The amount of shares shall be determined based on the average closing sale price of the Company's Ordinary Shares for the 15 trading days preceding the end of each quarter. Any quarterly amount, which the primary Wafer Partners have elected not to so convert, will not be utilizable against purchases made subsequent to that quarter, and shall bear interest, payable at the end of each quarter, at an annual rate equal to three-month LIBOR plus 2.5% through December 31, 2007. The aggregate principal of the unconverted long-term customers' advances, which could have been utilized against purchases and which the primary Wafer Partners elected not to convert into fully-paid Ordinary Shares of the Company, shall be fully repaid on December 31, 2007. Other than as described above in this paragraph and the preceding paragraph, each of the primary Wafer Partners agreed, on a going forward basis to only utilize long-term customer's advances after December 31, 2006.

### (6) FACILITY AGREEMENT

In January 2001, the Company entered into a credit facility agreement with two leading Israeli banks ("Banks") entitling the Company to borrow an aggregate, as amended in January 2002, of \$500,000 to finance the construction and equipping of Fab 2 ("Facility Agreement"). Following the amendment entered into between the Company and the Banks in November 2003, which is described in more detail below, the loans bear interest at a rate of Libor plus 2.5% per annum payable at the end of each quarter. Prior to the November 2003 amendment, the loans bore interest at a rate of Libor plus 1.55% per annum payable at the end of each quarter. The loans are available for withdrawal through December 31, 2004, and are subject to certain prepayment provisions. Unused amounts under the Facility Agreement, in the amount of \$69,000 as of December 31, 2003, are subject to a quarterly commitment fee of 0.25% per annum.

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### NOTE 13 - COMMITMENTS AND CONTINGENCIES (cont.)

#### A. COMMITMENTS AND CONTINGENCIES RELATING TO FAB 2 (cont.)

##### (6) FACILITY AGREEMENT (cont.)

Loans in the amount of \$431,000 received by the Company through December 31, 2003 (\$244,000 through December 31, 2002), were repaid on December 31, 2003 and, concurrently, were drawn down on such date at an equivalent amount to be repaid in 12 equal consecutive quarterly installments commencing on March 31, 2007 (the net amount of long-term loans the Company received in 2003 in connection with the abovementioned re-borrowing was \$187,000). Loans drawn down after December 31, 2003, are repayable in 12 equal consecutive quarterly installments, commencing three years from the draw down date of each loan, which in no case shall be after the maturity date of the Facility Agreement. With regard to further details regarding loans drawn down under the \$500,000

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credit facility, see Note 10.

Under the Facility Agreement and the terms of the Company's long-term loans as of December 31, 2003, the Company agreed to register liens in favor of the Banks on substantially all its present and future assets. If, as a result of any default under the Facility Agreement, the Banks were to accelerate the Company's obligations, the Company 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 Facility Agreement, including enforcement of the liens against the Company's assets.

In November 2003, the Company and its Banks entered into an amendment to the Facility Agreement. The amendment was based, among other things, on an updated plan for the construction and equipping Fab 2 submitted to the Banks, and was approved by the Company's shareholders' meeting held in December 2003. Pursuant to the amendment, the Banks waived all noncompliance or breach of covenants by the Company prior to the date of amendment. The amendments further revised and updated the covenants under the Facility Agreement according to which the Company is obligated to comply with certain operational and financial ratios, primarily total shareholders to total assets and production and capacity milestones.

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NOTE 13 - COMMITMENTS AND CONTINGENCIES (cont.)

A. COMMITMENTS AND CONTINGENCIES RELATING TO FAB 2 (cont.)

(6) FACILITY AGREEMENT (cont.)

As of December 31, 2003, the revised remaining aggregate amount the Company is required to raise from specified financial sources is \$152,000. This amount is to be raised through the following dates: by mid-March 2004, an aggregate of \$28,000; by the end of June 2004, an aggregate of \$53,500; by the end of December 2004, an aggregate of \$79,000; by the end of June 2005, an aggregate of \$115,500; and by the end of December 2005, an aggregate of \$152,000. Out of the Company's aggregate fundraising to be made by the end of December 2004, \$77,000 was achieved by the proceeds from the public offering described in Note 14G.

As of December 31, 2003, the Company was in full compliance with the revised financial ratios and covenants under the amended Facility Agreement.

The amended Facility Agreement provides that should the Company fail to meet any of the above fundraising obligations towards the \$152,000 at the dates described above, the Banks will have the option to demand that the Company consummate within three months from the failing raising date a rights offering of convertible debentures and warrants to purchase the Company's Ordinary Shares

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to raise the missing amount towards the required funding, all in accordance with the terms prescribed in the amended Facility Agreement.

The Israel Corporation Ltd. ("TIC"), the parent company of the Company's current major shareholder ("IC-Tech") has undertaken to the Banks to exercise all of the rights IC-Tech receives in the rights offering. In addition, as part of TIC's undertaking, it agreed to purchase from the Company 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 the amount the Company was to raise in the rights offering and the amount raised from shareholders other than TIC and/or IC-Tech, less any amounts actually invested in the rights offering by TIC and/or IC-Tech in connection with the exercise of their own rights. TIC's undertaking to the Banks is limited to an aggregate of \$50,000. If certain of the Company's shareholders participate in the above investment, then their investment will be deemed to be investments made by TIC towards the \$50,000 commitment. In the event that the rights offering cannot be completed, TIC has undertaken to purchase from the Company in a private placement 50/93 of the amount the Company was to raise in the rights offering. TIC may fulfill its investment commitments through IC-Tech.

TIC's undertaking and the Company's obligation to consummate a rights offering expires on the earlier of: (i) such time that the Company will fulfill the fundraising obligation to raise an aggregate of \$152,000 under the Facility Agreement as described above; (ii) such time as TIC has invested an aggregate amount of \$50,000 as described above; or (iii) June 30, 2006.

Following the receipt of the above described investments from TIC, the Banks will increase the total amount which the Company may draw under the Facility Agreement at a ratio of \$43 for every \$50 invested, up to \$43,000 in the aggregate. Any drawn loan will be repayable by the earlier of (i) December 2007 and (ii) three years from the date the loan is drawn. Should the Company draw down loans using this increased amount of facility, the Banks will be issued 30% warrant coverage of the amount drawn down, based on the average closing price of the Company's Ordinary Shares during the 15 consecutive trading days prior to the time the Company draws down such loans.

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NOTE 13 - COMMITMENTS AND CONTINGENCIES (cont.)

A. COMMITMENTS AND CONTINGENCIES RELATING TO FAB 2 (cont.)

(6) FACILITY AGREEMENT (cont.)

For further details regarding 896,596 warrants issued to the Banks in connection with this amendment, and warrants granted to the Banks in January 2001, see Note 14B(5)(a).



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For further details regarding 58,906 warrants issued to TIC in connection with its undertaking described above, and additional warrants issuable to TIC in the event the undertaking is realized, see Note 14B(5) (b).

The Company has agreed to indemnify IC-Tech and TIC for any liabilities they incur with respect to these arrangements, subject to them making any investment under their undertaking, up to a maximum of \$100,000 as follows: up to \$25,000 in cash and any amount exceeding such \$25,000 limit will earn interest at LIBOR plus 2.5% and will be paid on the same terms that the Company repays its loans to the Banks.

Following certain bankruptcy related events, the Banks will be able to bring a firm offer made by a potential investor to purchase the Company's ordinary shares (the "Offer") at a price provided in the Offer. In such case, the Company shall be required thereafter to procure a rights offering to invest up to 60% of the amount of the Offer on the same terms. If the offeror intends to purchase a majority of the Company's outstanding share capital, the rights offering will be limited to allow for this, unless IC-Tech and the primary Wafer Partners 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.

### (7) FAB 2 CONSTRUCTION AGREEMENT

In August 2000, the Company entered into a fixed price turn-key agreement with a contractor for the design and construction of Fab 2 in consideration of approximately \$200,000, to be paid according to certain performance milestones stipulated in the agreement, over approximately two years. As of December 31, 2003, approximately \$180,000 of that amount had already been paid by the Company.

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### NOTE 13 - COMMITMENTS AND CONTINGENCIES (cont.)

#### A. COMMITMENTS AND CONTINGENCIES RELATING TO FAB 2 (cont.)

### (8) APPROVED ENTERPRISE STATUS

In December 2000, the Investment Center approved an investment program in connection with Fab 2 for expansion of the Company's plant. The approval certificate for the program provides for a benefit track entitling the Company to investment grants at a rate of 20% of qualified investments of up to \$1,250,000. The grants are to be made in accordance with a timetable set forth in the approval certificate for the program.

Under the terms of the approval certificate, investments in respect of the Fab 2 approved enterprise program are to be

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completed by December 31, 2005, five years from the date the approval certificate was obtained. Due to the later than planned commencement of construction of Fab 2 and prevailing market conditions, the Company does not currently expect to complete Fab 2 investments defined in the approval certificate by the end of 2005. The Company has notified the Investment Center of its revised investment schedule contemplated in an updated plan for the construction and equipping Fab 2, and has also informed the Investment Center of the reduced rate of annual investments and lower than projected expectations for Fab 2 sales.

As of December 31, 2003, the Company's revised investments plan is currently being evaluated by the Investment Center. While Israeli law currently limits the ability of the Investment Center to extend the investment period beyond five years, the Company's management estimates, based on discussions held with the Investment Center, that it is probable that satisfactory arrangements will be made to allow for the extension of the reinvestment period.

### (9) AGREEMENT WITH THE ILA

In November 2000, the Company entered into a development agreement with the Israel Land Administration ("ILA") with respect to a parcel of land on which Fab 2 was constructed. Following the completion of the construction of Fab 2 on the land, in June 2003 the Company entered into a long-term lease agreement with the ILA for a period ending in 2049. The lease payments through 2049 relating to this lease have been paid in advance.

### (10) HEDGING ACTIVITIES

For hedging transactions and agreements the Company has entered into, see Note 18C.

### (11) OTHER AGREEMENTS

Through December 31, 2003 the Company had entered into several additional agreements related mainly to the construction, equipping and transfer of technology for Fab 2. The Company's aggregate commitment in connection with these agreements as of such date, including the Fab 2 construction agreement described in paragraph (7) above, amounted to \$99,035.

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## NOTE 13 - COMMITMENTS AND CONTINGENCIES (cont.)

### B. LICENSE AGREEMENTS

- (1) In June 2000, the Company entered into a cross license agreement with a major technology company. According to the agreement, each party acquired a non-exclusive license under the other's patents. The Company agreed to pay an annual royalty through July 2005.

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The licenses terminate on December 31, 2005.

- (2) In December 2001, the Company and DSP Group Ltd. ("DSPG") entered into a license agreement, pursuant to which DSPG granted the Company a personal, non-exclusive, nontransferable license to use certain technology in the Company's products, in exchange for license fee and ongoing royalties to be paid by either the Company or its customers based on sales of products manufactured in Fab 2 based on the technology. In addition, the agreement provides for technical support by DSPG in connection with using the technology. The license terminates on December 31, 2007.
- (3) In May 2002, the Company entered into a joint development and royalty-free, non-exclusive cross-license agreement with a Japanese semiconductor manufacturer corporation, for the joint development of certain technology to be used by the Company in its Fab 2 and by the Japanese manufacturer in its facilities. The agreement calls for certain amounts to be paid by the Japanese manufacturer to the Company following the signing of the agreement and subject to achievement of certain milestones, through a period ending 2005. Pursuant to the agreement, the Japanese manufacturer may allocate, subject to certain conditions stipulated in the agreement, part or all of the second half of the total amounts paid by it to the Company as long-term customer advances to be applied against future purchases made by the Japanese manufacturer through 2007. Sales for 2002 included a \$8,056 revenue in relation to this agreement.
- (4) The Company from time to time enters into intellectual property and licensing agreements with third parties, the effect of each of them on the Company's total assets and results of operations is immaterial. Certain of these agreements call for royalties to be paid by the Company to these third parties. See also paragraph F(2) below.

### C. LEASES

- (1) The Company's offices and engineering and manufacturing operations are located in a building complex situated in an industrial park in Migdal Ha'emek, in the northern part of Israel. These premises are currently occupied under a long-term lease from the Israel Lands Authority, which expires in 2032. The Company has no obligation for lease payments related to this lease through the year 2032.
- (2) The Company occupies certain other premises under various operating leases. The obligations under such leases were not material as of December 31, 2003.
- (3) With respect to a long-term lease agreement of land on which Fab 2 was constructed, see paragraph A(9) above.

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NOTE 13 - COMMITMENTS AND CONTINGENCIES (cont.)

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### D. PURCHASE AGREEMENTS

The Company from time to time enters into long-term purchase agreements with customers. Pursuant to such agreements, the Company is committed to sell, and the customer is committed to purchase (subject to reductions in certain circumstances), a specific monthly output derived from the start of processing of silicon wafers at prices which are stipulated in the agreements and are subject to periodic re-negotiations. From commencement of the Company's operations through December 31, 2003, a substantial portion of the Company's production has been sold under such agreements.

### E. PROFIT SHARING PLAN

The Company maintains an employee profit sharing plan. No amounts were provided for under this plan for periods presented in these financial statements, since the Company did not record profits for these periods.

### F. OTHER PRINCIPAL AGREEMENTS

- (1) MACRONIX - In December 2000, the Company and Macronix entered into an agreement according to which the Company waived in favor of Macronix certain exclusive semiconductor manufacturing rights it received from Saifun.
- (2) SAIFUN - Pursuant to an agreement between the Company and Saifun signed in October 1997, the Company has certain exclusive semiconductor manufacturing rights for certain licensed technology. The agreement also sets certain limitations on Saifun regarding future licensing of such technology (see (1) above). Pursuant to certain provisions of the agreement, the Company and Saifun are obligated, under certain circumstances, to pay each other royalties. For royalty amounts received and payable by the Company under the agreement, see Note 19B.
- (3) SILICONIX - In December 2003, the Company and chip maker Siliconix incorporated, an 80% owned subsidiary of Vishay Intertechnology Inc., entered into a memorandum of understanding ("MOU") for a long-term manufacturing and supply arrangement. Pursuant to the MOU, Siliconix will place with the Company orders valued at approximately \$200,000 for the purchase of wafers to be manufactured at the Company's Fab 1 over a seven to ten year period, of which approximately \$53,000 is guaranteed and will be delivered over a three year period starting at the first anniversary of the definitive agreement. Siliconix will advance the Company with \$20,000 to be used primarily for the purchase of additional equipment required to satisfy Siliconix orders, which will be credited towards the purchase price of the wafers. The transaction is subject to the approval of both companies' board of directors, the Company's Banks, the Investment Center and to the negotiation of definitive documentation. A definitive agreement is expected to be signed during the first quarter of 2004.
- (4) OTHER - The Company, from time to time in the normal course of business, enters into long-term agreements with various entities for the joint development of products and processes utilizing technologies owned by both the other entities and the Company.

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NOTE 13 - COMMITMENTS AND CONTINGENCIES (cont.)

G. ENVIRONMENTAL AFFAIRS

The Company's 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 the production processes. Operating permits are required for the operations of the Company's facilities and these permits are subject to revocation, modification and renewal. Government authorities have the power to enforce compliance with these regulations and permits. As of December 31, 2003 the Company operated under a conditional permit from the Ministry of Environmental Affairs concerning the concentration of fluoride in the Company's wastewater. In management's opinion, the Company is in compliance with the terms of this permit, with one exception: the Company is 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 the permit. In addition, management is of the opinion that the Company is currently in compliance in all other material respects with applicable laws and regulations.

H. CLASS ACTION

In July 2003, certain shareholders of the Company filed a shareholders' class action complaint in the United States against the Company and certain of its directors, Wafer Partners and Equity Investors (the "Defendants"). 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 the Company's shareholders in April 2002 with respect to the approval of an amendment to the Company's investment agreements with its Fab 2 investors. The plaintiffs seek damages in unspecified amounts and unspecified rescissory relief. The Company believes that the complaint is without merit and intends to vigorously contest it. In January 2004, the Company filed with the court a motion to dismiss the action.

I. AMENDMENT TO ISRAELI BANKING REGULATIONS

Pursuant to a recent amendment to a directive published by the Israel Supervisor of Banks, which becomes effective on March 31, 2004, the Company may be deemed part of a group of borrowers comprised of the Ofer Brothers Group, The Israel Corporation (the later being currently the indirect major shareholder of the Company), and 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 an entity will be subject to limitations on the amount of bank financing available to it if such entity is included within a group of borrowers, to which the amount of debt financing that has been extended from such bank amounts to 30% of such bank's capital, or is a member of one of the bank's six largest borrowers or groups of borrowers to which, collectively, the amount of debt financing that has been extended from a bank amounts to 150% of

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such bank's capital (gradually reduced to 135% between April 2005 and June 2006). If the Company's Banks exceed these limitations, they may limit the Company's ability to draw down the remaining Fab 2 credits of \$69,000 and may require that the Company return some or all of the Company's outstanding borrowings (\$431,000 as of December 31, 2003).

### J. OTHER COMMITMENTS

Receipt of certain research and development grants from the government of Israel is subject to various conditions. In the event the Company fails to comply with such conditions, the Company may be required to repay all or a portion of the grants received. In management's opinion, the Company has been in full compliance with the conditions through December 31, 2003.

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
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### NOTE 14 - SHAREHOLDERS' EQUITY

#### A. DESCRIPTION OF ORDINARY SHARES

As of December 31, 2003 and 2002, the Company had 150,000,000 and 70,000,000 authorized par value NIS 1.00 Ordinary Shares, respectively, of which 51,696,097 and 43,435,532, respectively, were issued and outstanding (net of 1,300,000 Ordinary Shares held by the Company as of such dates). As of the approval date of the financial statements, the Company had 65,137,883 issued and outstanding Ordinary Shares (net of 1,300,000 Ordinary Shares held by the Company as of such date). For shares issued in January 2004 following a public offering, see Note 14G. As of December 31, 2003, the Company was engaged in agreements and arrangements to issue 12,205,034 additional Ordinary Shares of the Company. This amount includes Ordinary Shares to be issued under various agreements according to their provisions as of December 31, 2003 related to Fab 2 Wafer Partners and Equity Investors warrants, the exercise of all options granted and issued to non-employees and the conversion of all the convertible debentures.

Holders of Ordinary Shares are entitled to participate equally in the payment of cash dividends and bonus share (stock dividend) distributions and, in the event of the liquidation of the Company, in the distribution of assets after satisfaction of liabilities to creditors. Each ordinary share is entitled to one vote on all matters to be voted on by shareholders.

#### B. SHARE OPTION PLANS

##### (1) EMPLOYEE AND DIRECTOR SHARE OPTIONS

- (A) GENERAL - The Company has granted to its employees options to purchase its Ordinary Shares under several option plans adopted by the Company since 1994 through 2003. The particular provisions of each plan and grant vary as to vesting period, exercise price, exercise period and other terms. Generally, the options are granted at an exercise

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price which equals to not less than 85% of the market value of the Ordinary Shares at the date of grant (in mostly all cases, at an exercise price equal to the market value of the underlying shares at the date of grant); vest over a three to four-year period according to various vesting schedules; and are not exercisable beyond ten years from the grant date under each plan.

- (B) OPTIONS TO THE COMPANY'S CHAIRMAN OF THE BOARD OF DIRECTORS - In March 2003, the Board of Directors of the Company approved a share option plan, which was approved by the Company's shareholders in May 2003, pursuant to which the Company's Chairman of the Board of Directors ("Chairman") is entitled to receive the right to purchase up to 1,043,000 Ordinary Shares of the Company at an exercise price of \$2.983, an exercise price which is higher than the Company's share price at the date of the approval by the Board of Directors, and is equivalent to the average closing trading price for the Company's Ordinary Shares during the 30 consecutive trading days preceding the date of board approval of the amendment to the Fab 2 investment agreements described in Note 13A(5) above. Options granted under the plan vest over a five-year period according to various vesting schedules. The vesting of the options is subject to the Chairman's serving as the Chairman or as the Company's Chief Executive Officer or President on the relevant vesting dates. The options granted are exercisable for a period of five years from the date on which the options vest.

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
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### NOTE 14 - SHAREHOLDERS' EQUITY (cont.)

#### B. SHARE OPTION PLANS (cont.)

##### (1) EMPLOYEE AND DIRECTOR SHARE OPTIONS (cont.)

- (C) OPTIONS GRANTED TO DIRECTORS - During 2001, the Audit Committee, the Board of Directors of the Company and the general meeting of the Company's shareholders approved a stock option plan pursuant to which the Company's directors will be granted options to purchase up to 400,000 Ordinary Shares of the Company (40,000 to each eligible director appointed to the Board of Directors) at an exercise price equal to the market price of the Company's shares on the grant dates (weighted average exercise price of approximately \$8.48). As of December 31, 2003 and 2002, 280,000 options were outstanding under the plan. Options granted under the plan vest over a four-year period according to various vesting schedules, and generally may not be exercised beyond five years from the date they first become exercisable.

In addition, during 2000 and 2001, the Audit Committee, the Board of Directors of the Company and the general meeting of

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the Company's shareholders approved the grant to a director of the Company options to purchase up to 50,000 and 21,500 Ordinary Shares, respectively, of the Company at an exercise price of \$20.00 and \$10.75, respectively, per share, the market price of the Company's shares on the dates of grant. The options may be exercised for a period of three years from the date on which they have become vested. As of December 31, 2003, all the options are vested.

- (D) OPTIONS GRANTED TO FORMER CO-CEOS IN OCTOBER 1998 AND MAY 2001 - In October 1998 and May 2001, the Board of Directors of the Company approved share option plans pursuant to which each of the Company's two former Co-Chief Executive Officers was granted the right to purchase up to 300,000 and 100,000, respectively, Ordinary Shares of the Company at an exercise price of \$7.00 and \$11.81, respectively, the market price of the Company's shares on the dates of grant. In the framework of the retirement of the former Co-Chief Executive Officers in May 2003, based on their retirement provisions as stipulated in the agreements, the 300,000 options are available for exercise through April 2007.
- (E) OPTIONS AVAILABLE FOR GRANT - Under a provision approved in September 2000, as amended in December 2003, by the Company's Board of Directors, on January 1 of each year commencing 2001 and ending 2003 and on each year commencing November 1, 2003 and November 1, 2004, the total number of options available for grant under all the Company's employee share option plans is to be increased by an amount equal to certain percentage of the outstanding Ordinary Shares of the Company on each such dates, provided that the maximum number of options available for grant at any time shall not exceed 12% of the outstanding Ordinary Shares of the Company, and that additional options may not be granted if the total number of unvested options outstanding under all the Company's share option plans exceeds 12% of the outstanding Ordinary Shares of the Company. The percentage of the outstanding Ordinary Shares of the Company added for the years 2001, 2002 and 2003 was 4% and the percentage for the years 2004 and 2005 will be 3.6%. Accordingly, as of December 31, 2003, an aggregate of 5,583,353 options were added to the Company's share option plans, of which 2,120,916 had not yet been designated for identified employees, and are accordingly available for grant under the general terms described in paragraph (a) above.

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NOTE 14 - SHAREHOLDERS' EQUITY (cont.)

B. SHARE OPTION PLANS (cont.)

(2) SUMMARY OF THE STATUS OF ALL THE COMPANY'S EMPLOYEE AND DIRECTOR SHARE OPTIONS



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A summary of the status of all the Company's employee and director share option plans as of December 31, 2003, 2002 and 2001, as well as changes during each of the years then ended, is presented below (for options granted to the Banks, a related party and a consultant, see paragraph B(5) below):

	2003		2002		Number of share options
	Number of share options	Weighted average exercise price	Number of share options	Weighted average exercise price	
Outstanding as of beginning of year	4,247,898	\$ 10.79	3,717,770	\$ 11.94	2,376,000
Granted	3,118,742	4.10	905,724	5.82	1,583,000
Exercised	--		--		(31,000)
Terminated	--		--		
Forfeited	(524,199)	8.25	(375,596)	10.27	(211,000)
Outstanding as of end of year	<u>6,842,441</u>	7.93	<u>4,247,898</u>	10.79	<u>3,717,000</u>
Options exercisable as of end of year	<u>2,008,674</u>	11.60	<u>1,299,531</u>	10.49	<u>1,080,000</u>

### (3) SUMMARY OF INFORMATION ABOUT EMPLOYEE SHARE OPTIONS OUTSTANDING

The following table summarizes information about employee share options outstanding as of December 31, 2003:

Outstanding as of December 31, 2003					
Range of exercise prices	Number outstanding	Weighted average remaining contractual life	Weighted AVERAGE exercise price		
-----	-----	-----	-----		
(in years)					
2.98 - 3.96	1,078,000	7.66	3.00		
4.42 - 4.92	1,505,400	9.63	4.43		
5.00 - 5.96	168,200	8.90	5.25		1
6.00 - 6.99	974,575	8.57	6.10		1
7.00 - 7.99	720,350	3.61	7.03		71
8.06 - 8.99	565,335	4.37	8.55		36
9.06 - 9.81	64,038	2.89	9.23		5
10.00 - 10.89	857,088	7.19	10.42		31
11.81 - 11.81	200,000	7.41	11.81		6
12.13 - 13.00	71,910	5.01	12.49		4
14.25 - 17.19	30,750	6.67	15.79		2
18.75 - 18.75	76,500	6.26	18.75		2
20.00 - 25.00	530,295	6.22	24.43		37

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Total	6,842,441	7.28	7.93	2,00
	=====			=====

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NOTE 14 - SHAREHOLDERS' EQUITY (cont.)

B. SHARE OPTION PLANS (cont.)

(4) WEIGHTED AVERAGE GRANT-DATE FAIR VALUE OF OPTIONS GRANTED TO EMPLOYEES

The weighted average grant-date fair value of the options granted during 2003, 2002 and 2001 to employees and directors amounted to \$2.18, \$2.83 and \$6.95 per option, respectively. The Company utilized the Black-Scholes option pricing model to estimate fair value, utilizing the following assumptions for the years 2003, 2002 and 2001 (all in weighted averages):

	2003	2002	2001
	----	----	----
Risk-free interest rate	2.88%-3.22%	2.80%	4.25%
Expected life of options	4.75 years	4.82 years	4.80 years
Expected annual volatility	55%-74%	56%	87%
Expected dividend yield	None	None	None

(5) Non-Employee Warrants

(A) BANKS - As of December 31, 2003, the Company granted the Banks an aggregate of 1,296,596 warrants to purchase Ordinary Shares of the Company, at an average exercise price of \$6.18 per share, at terms described below:

WARRANTS ISSUED IN JANUARY 2001 - In January 2001, as part of the Facility Agreement described in Note 13A(6), the Banks received an aggregate of 400,000 warrants to purchase Ordinary Shares of the Company (200,000 each) at an exercise price, as amended in December 2001, of \$6.20 per share. As of December 31, 2003, all of these warrants were fully vested. The warrants are exercisable for a five-year period ending January 2006.

In lieu of paying the exercise price in cash as described below, the Banks are entitled to exercise the warrants on a "cashless" basis, i.e. by forfeiting all or part of the warrants in exchange for ordinary shares equal to the aggregate fair market value of the shares underlying the warrants forfeited less the aggregate exercise price.

The cost of the warrants issued to the Banks, determined based on the fair value at the grant and amendment dates in accordance with SFAS 123, amounted to a total of \$5,466. Such amount is amortized as deferred financing charges over the terms of the loans under the Facility Agreement.

WARRANTS GRANTED IN DECEMBER 2003 - In December 2003, as part of the amendment to the Facility Agreement described in Note 13A(6), the Banks received an aggregate of 896,596 warrants to purchase Ordinary Shares of the Company (448,298 each) at an exercise price of \$6.17 per share, the 15 day average closing price of the Company's Ordinary Shares prior to the date the amendment with the Banks described in Note 13A(6) was signed. As of December 31, 2003, all of the warrants are fully vested. The warrants are exercisable for a five-year period ending December 2008.

The cost of the warrants issued to the Banks, determined based on the fair value at the grant and amendment dates in accordance with SFAS 123, amounted to a total of \$3,946. Such amount is amortized as deferred financing charges over the terms of the loans under the Facility Agreement.

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NOTE 14 - SHAREHOLDERS' EQUITY (cont.)

B. SHARE OPTION PLANS (cont.)

(5) NON-EMPLOYEE SHARE WARRANTS (cont.)

(A) BANKS (cont.)

WARRANTS TO BE GRANTED TO THE BANKS - In the event the Banks increase the loans available to be drawn down by the Company under the Facility Agreement, as described in Note 13A(6), the Company will issue the Banks additional five-year warrants equivalent to 30% of the amount drawn down based on the average closing price of the Company's Ordinary Shares during the 15 trading days prior to the time the Company draws down such loan. As of December 31, 2003, no warrants were issued under this commitment.

(B) WARRANTS GRANTED TO A RELATED PARTY - In consideration for TIC's undertaking described in Note 13A(6), the Company issued IC-Tech warrants for the purchase of 58,906 of the Company's Ordinary Shares. The exercise price for the warrants is \$6.17 per share, the 15-day average closing price of the Company's Ordinary Shares prior to the date the amendment with the Banks described in Note 13A(6) was signed. As of December 31, 2003, all of the warrants are fully vested. The warrants are exercisable for a five-year period ending December 2008.

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The cost of the warrants award granted to IC-Tech, determined based on the fair value at the grant date in accordance with SFAS 123, amounted to a total of \$259. Such amount was allocated to other assets as deferred financing charges to be amortized as financing expense over the terms of the loans under the Facility Agreement with the Banks.

In addition, in the framework of TIC's undertaking described in Note 13A(6), the Company undertook to issue additional warrants to IC-Tech as a subscription fee which will be 5% of the total amount of money invested by TIC in case the TIC's undertaking is realized in consideration for all of the unsubscribed rights that it actually purchases. The exercise price of these warrants shall be the 15-day average closing price of the Company's Ordinary Shares prior to the date of the rights offering prospectus, and they shall expire five years from their date of issuance.

- (C) OPTIONS GRANTED TO CONSULTANT - In return for services provided to the Company by a consultant in connection with obtaining certain agreements relating to Fab 2, the Company awarded the consultant with options, which were fully expired in August 2001. The cost of the options award granted to the consultant, determined based on the fair value at the relevant measurement dates in accordance with SFAS 123, amounted to \$1,576. Of that amount, \$524 was attributed to the technology transfer agreement with Toshiba and is being amortized in accordance with the other technology transfer costs. The remaining \$1,052 was attributed to issuance of Ordinary Shares to certain Wafer Partners and was included in paid-in capital.

- (D) WARRANTS ISSUED TO OTPP - See Note 13A(4).

The Company utilized the Black-Scholes option pricing model to estimate fair values of options and warrants granted to non-employees, utilizing the assumptions similar to those presented in paragraph B(4) above.

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NOTE 14 - SHAREHOLDERS' EQUITY (cont.)

B. SHARE OPTION PLANS (cont.)

- (6) PRO FORMA LOSS PER SHARE ACCORDING TO SFAS 123 AND SFAS 148

Had compensation cost for the Company's share option plans been determined based on fair value at the grant dates for all awards made through December 31, 2003 in accordance with SFAS 123, as amended by SFAS 148, the Company's pro forma loss per share would have been as follows:

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	2003 ----	2002 ----	2001 ----
PRO FORMA LOSS			
Loss for the year, as reported	\$ (114,261)	\$ (51,402)	\$ (38,522)
Less - stock-based compensation determined under APB-25	27	142	283
Add - stock-based compensation determined under SFAS 123	(8,437)	(7,476)	(6,209)
	-----	-----	-----
Pro forma loss	\$ (122,671)	\$ (58,736)	\$ (44,448)
	=====	=====	=====
PRO FORMA BASIC LOSS PER SHARE			
As reported	\$ (2.40)	\$ (1.63)	\$ (1.92)
	=====	=====	=====
Pro forma	\$ (2.57)	\$ (1.87)	\$ (2.27)
	=====	=====	=====

C. TREASURY STOCK

During 1998, the Board of Directors of the Company authorized, subject to certain conditions, the purchase of up to 1,400,000 Ordinary Shares to facilitate the exercise of employee stock options under the Company's share option plans. During 1999 and 1998, the Company funded the purchase by a trustee of 142,500 and 1,157,500, respectively, of the Company's Ordinary Shares.

D. DIVIDEND DISTRIBUTIONS

According to the Facility Agreement, as amended, (Note 13A(6)), the Company undertook not to distribute any dividends prior to January 1, 2008. Any dividend distributions after that date shall be subject to provisions stipulated in such agreement.

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NOTE 14 - SHAREHOLDERS' EQUITY (cont.)

E. SALE OF SECURITIES

In January 2002, the Company issued on the Tel Aviv Stock Exchange, Israel NIS 110,579,800 principal amount of convertible debentures, under terms described in Note 11. Together with the convertible debentures the Company issued for no consideration an aggregate of 552,899 options (all of which expired without being exercised) and 2,211,596 Options (Series 1) exercisable into one Ordinary Share of the Company until January 20, 2006 at an exercise price of NIS 39.00 (subject to customary adjustments), linked to the Israeli Consumer

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Price Index (as of December 31, 2003 - NIS 40.83, \$9.32). The total initial proceeds raised were \$23,200, and costs related to the issuance of the securities and the prospectus in Israel were approximately \$1,750. See Note 20E for the disclosure of the accounting treatment of the sale of these securities under U.S. GAAP.

### F. RIGHTS OFFERING

In October 2002, the Company issued in connection with a rights offering done on the Nasdaq and on the Tel-Aviv Stock Exchange in Israel 4,097,964 Ordinary Shares of the Company and 1,844,082 warrants to purchase Ordinary Shares of the Company, in consideration for an aggregate of gross proceeds of \$20,490. Of these amounts, 4,086,037 Ordinary Shares and 1,838,715 warrants were issued to Wafer Partners and Equity Investors in consideration for an aggregate of \$20,430. Each warrant may be exercised for the purchase of one Ordinary Share at an exercise price of \$7.50 for a period ending on October 31, 2006. Costs in relation to the prospectus and the issuance of the securities were approximately \$800.

### G. PUBLIC OFFERING IN JANUARY 2004

In January 2004, the Company completed a public offering of 11,000,000 of its Ordinary Shares. Gross proceeds received in January 2004 were \$77,000, and costs in relation to the prospectus and the issuance of the securities were approximately \$4,700. In addition, the Company granted the underwriters a 30-day option to purchase up to an additional 1,650,000 ordinary shares at the public offering price to cover over-allotments.

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
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#### NOTE 15 - INFORMATION ON GEOGRAPHIC AREAS AND MAJOR CUSTOMERS

##### A. SALES BY GEOGRAPHIC AREA (as percentage of total sales)

	Year ended December 31,		
	2003	2002	2001
	----	----	----
United States	73%	62%	69%
Asia Pacific - in 2003, Taiwan; in 2002, primarily Japan; in 2001, primarily Taiwan	10	25	18
Europe	15	11	10
Israel	2	2	3
	---	---	---
Total	100%	100%	100%
	===	===	===

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- B. LONG-LIVED ASSETS BY GEOGRAPHIC AREA - Substantially all of the Company's long-lived assets are located in Israel.
- C. MAJOR CUSTOMERS (as percentage of total sales)

	Year ended December 31,		
	2003	2002	2001
	-----	-----	-----
Customer A	24%	31%	30%
Customer B	20	--	--
Customer C	11	13	17
Customer D	--	16	--
Other customers (*)	20	21	28

(\*) Represent sales to six different customers each of whom accounted for between 0% and 9% of sales during 2003; to five customers (2%-7%) during 2002; and to five customers (2%-8%) during 2001.

As of December 31, 2003 and 2002, the above major customers constituted the majority of the trade accounts receivable reflected on the balance sheets.

### NOTE 16 - FINANCING INCOME (EXPENSE), NET

Financing income (expense), net consist of the following:

	Year ended December 31,		
	2003	2002	2001
	-----	-----	-----
Financial expenses (primarily bank loan interest)	\$(16,073)	\$(11,669)	\$ (3,365)
Financial expenses in relation to convertible debentures	(1,198)	(1,101)	--
Less capitalized interest - Note 6A(3)	6,892	10,260	1,328
	-----	-----	-----
Financing income (primarily bank deposit interest)	(10,379) 553	(2,510) 406	(2,037) 3,502
	-----	-----	-----
Financing income (expense), net	\$ (9,826)	\$ (2,104)	\$ 1,465
	=====	=====	=====

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
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### NOTE 17 - INCOME TAXES

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### A. APPROVED ENTERPRISE STATUS

Substantially all of the Company's existing facilities as of December 31, 2003 have been granted approved enterprise status, as provided by the Israeli Law for the Encouragement of Capital Investments - 1959 ("Investments Law") (see Note 6B).

The tax benefits derived from approved enterprise status relate only to taxable income attributable to each approved enterprise investments programs. Pursuant to the Investments Law and the approval certificates, the Company's income attributable to its various approved enterprise investments is taxed at a rate of up to 25% through periods ending between 2003 and 2012. Taxable income attributable to Fab 2 approved program shall be tax-exempt for the first two years it arises. The portion of the Company's taxable income that is not attributable to approved enterprise investments is taxed at a rate of 36% (regular "Company Tax").

The tax benefits are also conditioned upon fulfillment of the requirements stipulated by the Investments Law and the regulations promulgated there under, as well as the criteria set forth in the certificates of approval. In the event of a failure by the Company to comply with these conditions, the tax benefits could be canceled, in whole or in part, and the Company would be required to refund the amount of the canceled benefits, plus interest and certain inflation adjustments. In management's opinion, the Company has been in compliance with the conditions through the approval date of the financial statements (see Note 6B).

### B. COMPONENTS OF DEFERRED TAX ASSET/LIABILITY

The following is a summary of the components of the deferred tax benefit and liability reflected on the balance sheets as of the respective dates:

	As of December 31,	
	2003	2002
	----	----
DEFERRED TAX BENEFIT - CURRENT		
Accrued vacation pay	\$ 695	\$ 582
Other	62	82
	-----	-----
	757	664
Valuation allowance	(757)	(664)
	-----	-----
Total current deferred tax benefit	\$ --	\$ --
	=====	=====
NET DEFERRED TAX BENEFIT - LONG-TERM		
Deferred tax asset -		
Net operating loss carryforward	\$ 58,048	\$ 19,094
Research and development	3,748	2,759
Liability for employee rights upon severance	887	781
	-----	-----
	62,683	22,634
Valuation allowance	(43,861)	(17,229)
	-----	-----
	18,822	5,405



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Deferred tax liability - depreciation and amortization	(18,822)	(5,405)
	-----	-----
Total net long-term deferred tax benefit	\$ --	\$ --
	=====	=====

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
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NOTE 17 - INCOME TAXES (cont.)

C. EFFECTIVE INCOME TAX RATES

The reconciliation of the statutory tax rate to the Company's effective tax rate is as follows:

	Year ended December 31,		
	2003	2002	2001
	----	----	----
Israeli statutory rate	(36)%	(36)%	(36)%
Reduced tax rate for approved enterprise	16	16	16
Tax benefits for which deferred taxes were not recorded	23	10	22
Permanent differences and other, net	(3)	10	(2)
	----	----	----
	--%	--%	--%
	====	====	====

D. NET OPERATING LOSS CARRYFORWARD

As of December 31, 2003, the Company had net operating loss carryforwards for tax purposes of approximately \$300,000, which may be carried forward for an unlimited period of time.

E. FINAL TAX ASSESSMENTS

The Company possesses final tax assessments under agreement through the year 1998. In addition, the tax assessment for 1999 is deemed final.

NOTE 18 - FINANCIAL INSTRUMENTS

A financial instrument is defined as cash, evidence of an ownership interest in an entity, or a contract that imposes on one entity a contractual obligation either to deliver or receive cash or another financial instrument to or from a second entity. Examples of financial instruments include cash and cash equivalents, trade accounts receivable, loans, investments, trade accounts payable, accrued expenses, options and forward contracts.

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The Company makes certain disclosures with regard to financial instruments, including derivatives. These disclosures include, among other matters, the nature and terms of derivative transactions, information about significant concentrations of credit risk, and the fair value of financial assets and liabilities.

See Note 20C for disclosure related to the Company's derivatives financial instruments in accordance with U.S. GAAP.

### A. HEDGING ACTIVITIES

The Company, from time to time, enters into foreign currency derivatives to hedge its foreign currency exposure to equipment purchase commitments and other firm commitments denominated in foreign currency (primarily Japanese Yen and Euro). In that regard, the Company generally uses foreign currency forward contracts and options (zero-cost cylinder) as hedging instruments for foreign currency exposure. Accordingly, if the hedge is determined to be effective all changes in value attributed to spot rate fluctuations as well as the premium of forward contracts and the time value of options at inception are deferred until the hedged item is recognized (i.e., receipt of the equipment). The time value of options at inception is amortized on a straight-line basis.

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
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### NOTE 18 - FINANCIAL INSTRUMENTS (cont.)

#### A. HEDGING ACTIVITIES (cont.)

In addition, the Company, from time to time, enters into agreements to hedge variable interest rate exposure on long-term loans (see Note 10). In order to hedge the cash flow related to this exposure, the Company uses various types of derivative contracts, consisting primarily of interest rate caps, floors and collars. If the hedge is determined to be effective, the changes in the intrinsic value of the derivative contracts are deferred and recognized in results of operations as interest payments become due. The time value of options at inception is recognized in earnings on a straight-line basis. When the related debt is issued in connection with the acquisition of assets not yet placed into operations, interest costs and gains and losses on the derivative contracts are capitalized to the related asset.

The Company does not hold or issue derivative financial instruments for non-hedging purposes.

#### B. CREDIT RISK OF FINANCIAL INSTRUMENTS, INCLUDING DERIVATIVES

The face or contract amounts of derivatives do not represent amounts exchanged by the parties and, accordingly, are not a measure of the exposure of the Company through its use of derivatives.

The Company is exposed to credit-related losses in respect of derivative financial instruments in a manner similar to the credit

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risk involved in the realization or collection of other types of assets. In management's estimation, due to the fact that derivative financial instrument transactions are entered into solely with financial institution counterparties, it is not expected that such counterparties will fail to meet their obligations. Substantially all remaining financial instruments held by the Company are due from governmental entities and, accordingly, the Company's credit risk in respect thereof is negligible.

### C. PRESENTATION OF HEDGING ACTIVITIES IN THE FINANCIAL STATEMENTS

- (1) As of December 31, 2002, the Company had an outstanding foreign exchange agreements (options) to hedge exposure related to the purchase of machinery and equipment in an aggregate of \$44,032 (as of December 31, 2003 - \$0). The agreements resulted in 2003 in a gain of \$2,357 of which \$1,663 was capitalized to fixed assets; in 2002 -\$3,062 and \$2,770, respectively; in 2001 - in a loss of \$4,462 from forward transactions of which \$4,564 was capitalized to fixed assets.
- (2) As of December 31, 2003 and 2002, the Company had an outstanding agreements to hedge interest rate exposure on loans to be withdrawn under the Facility Agreement, the aggregate amount of which was \$212,000, all of which is attributable to Fab 2. These agreements resulted in 2003 in a loss of \$5,335 of which \$2,547 was capitalized to property and equipment; in 2002 - a loss of \$3,707 of which \$3,593 was capitalized to property and equipment; in 2001 - a loss of \$463 of which \$344 was capitalized to property and equipment.

### D. FAIR VALUE OF FINANCIAL INSTRUMENTS

The estimated fair values of the Company's financial instruments, excluding the Company's agreements to hedge interest rate exposure on long-term loans, did not materially differ from their respective carrying amounts as of December 31, 2003 and 2002. The fair value of the interest rate hedging transactions as of December 31, 2003 would have resulted in an unrealized capitalizable loss of \$9,920 (as of December 31, 2002 - \$11,952).

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
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(dollars in thousands, except share data and per share data)

### NOTE 19 - RELATED PARTIES BALANCES AND TRANSACTIONS

#### A. BALANCES

	As of December 31,	
	2003	2002
	-----	-----
Trade accounts receivable	\$5,286	\$ 583
	=====	=====

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Current liabilities	\$ 23	\$ 6
	=====	=====

B. Transactions

	Year ended December 31,		
	2003	2002	2001
	----	----	----
Sales	\$13,282	\$ 3,836	\$ 4,339
	=====	=====	=====
Management fees	\$ 240	\$ 480	
	=====	=====	
Purchases of raw materials	\$ --	\$ 209	\$ 2,460
	=====	=====	=====
Development costs - Note 5B	\$ --	\$ 102	\$ 225
	=====	=====	=====
Expense reimbursements paid	\$ 99	\$ 101	\$ 290
	=====	=====	=====
Expense reimbursements received	\$ 282	\$ 177	
	=====	=====	
Royalties received - Note 13F(2)	\$ 225		\$ 500
	=====		=====
Royalties paid/payable - Note 13F(2)	\$ 12		\$ 300
	=====		=====

C. For commitments, contingencies and other transactions relating to Fab 2 Wafer Partner and Equity Investor agreements - see Note 13A.

NOTE 20 - MATERIAL DIFFERENCES BETWEEN ISRAEL AND U.S. GAAP

With regard to the Company's financial statements, the material differences between GAAP in Israel and in the U.S. relate to the following. See G below for the presentation of the Company's balance sheets as of December 31, 2003 and 2002 in accordance with U.S. GAAP.

A. PRESENTATION OF CASH AND SHORT-TERM AND LONG-TERM INTEREST-BEARING DEPOSITS DESIGNATED FOR INVESTMENTS RELATING TO FAB 2

In accordance with U.S. GAAP, cash, short-term and long-term interest-bearing deposits designated for investments relating to Fab 2 should be excluded from current assets and long-term investments and presented separately as a non-current asset. Accordingly, as of December 31, 2003, \$44,042 and \$4,848 were reclassified, respectively, from current assets and long-term investments to a long-term asset (as of December 31, 2002 - \$51,338 and \$11,893, respectively).

B. PRESENTATION OF NET LONG-TERM LIABILITIES IN RESPECT OF EMPLOYEES

Under U.S. GAAP, assets and liabilities relating to severance arrangements are to be presented separately and are not to be offset, while according to Israeli GAAP such an offset is required.

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Accordingly, an amount of \$14,607 and \$12,368 as of December 31, 2003 and 2002, respectively, was reclassified from other long-term liabilities to long-term investments.

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
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NOTE 20 - MATERIAL DIFFERENCES BETWEEN ISRAEL AND U.S. GAAP (cont.)

C. HEDGING ACTIVITIES IN ACCORDANCE WITH U.S. GAAP (SFAS 133)

- (1) In 2001, the Company adopted SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities" and the related statements and interpretations thereon (collectively, "SFAS 133"). A derivative is typically defined as an instrument whose value is derived from an underlying instrument, index or rate, has a notional amount, requires no or little initial investment and can be net settled.

SFAS 133 requires that all derivatives be recorded in the financial statements at their fair value at the date of the financial statements. The changes in the fair value of the derivatives are charged to the statement of operations or to other comprehensive income, as appropriate in the circumstances. The Company's derivatives consist mainly of foreign currency forward transactions and options and interest rate instruments (collars).

Prior to the adoption of SFAS 133, the Company accounted for hedging activities for U.S. GAAP purposes according to the policy described in Notes 2M and 18A. Based on the hedging activities the Company had prior to January 1, 2001, the financial statements of the Company were not materially affected by the initial adoption of SFAS 133.

- (2) The Company uses foreign exchange agreements (forward contracts and options) to hedge its foreign currency exposure in anticipated equipment purchases denominated in foreign currency. All foreign exchange agreements are with underlying terms that match or approximate the hedged transactions and thus are highly effective. The Company measures the effectiveness of the forward contracts hedges based on forward rates. The Company assesses and measures the effectiveness of the options hedge, at inception and throughout the hedge, based on total changes in cash flows. All changes in fair value are reported in other comprehensive income. The amounts accumulated in other comprehensive income are expensed to results of operations concurrent with the recognition of depreciation expenses on the equipment. As of December 31, 2003, there were not any outstanding foreign exchange agreements. For outstanding foreign exchange agreements as of December 31, 2002, see Note 18C(1).

The Company uses interest rate collars with a knock-out feature to hedge its Libor-based variable long-term debt cash flow exposure. The knock-out feature was set above the cap level. The Company determined that the probability that the cap will be

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knocked-out is remote and thus expected that the hedge will be highly effective. The Company assessed and measured the effectiveness of the hedge, at inception and throughout the hedge, based on total changes in cash flows of the collar, and reported all changes in fair value in other comprehensive income. Amounts presented in other comprehensive income are reclassified to operations or capitalized to property and equipment, as applicable (see Note 2G), as interest payment become due. For outstanding contracts as of December 31, 2003 and 2002, see Note 18C(2).

Following the commencement of operations of Fab 2 during the third quarter of 2003, \$6,641 of the aggregate comprehensive loss as of June 30, 2003, which is attributable to property and equipment, is amortized on a straight-line method over five years, in corresponding to the economic useful lives of the machinery and equipment.

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NOTE 20 - MATERIAL DIFFERENCES BETWEEN ISRAEL AND U.S. GAAP (cont.)

C. HEDGING ACTIVITIES IN ACCORDANCE WITH U.S. GAAP (SFAS 133) (cont.)

(3) Complying with SFAS 133 and SFAS 138 and the related interpretations thereon with respect to the Company's hedging transactions as of December 31, 2003 would have resulted in: an increase in other long-term liabilities in the amount of \$9,920; a decrease in other comprehensive loss for the year ended December 31, 2003 of \$1,940 and in the accumulated other comprehensive loss component of equity as of such date in the amount of \$15,897; and in a decrease of \$5,947 in property and equipment, net as of December 31, 2003.

D. IMPLEMENTATION OF SFAS 123 AND SFAS 148

Had compensation cost for the Company's share option plans been determined based on fair value at the grant dates for awards made through December 31, 2003 in accordance with SFAS 123, as amended by SFAS 148, the Company's pro forma loss and loss per share would have been as follows (for further information with regard to the Company's share option plans and the assumptions for utilizing the Black-Scholes pricing model, see Note 14B(4)):

	2003	Year ended December 31, ----- 2002	2001 -----
PRO FORMA LOSS			
Loss for the year, as reported according to			
U.S. GAAP (see H below)	\$(114,261)	\$ (51,402)	\$ (38,522)

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Less - stock-based compensation determined under APB-25	27	142	283
Add - stock-based compensation determined under SFAS 123	(8,437)	(7,476)	(6,209)
Pro forma loss	\$(122,671)	\$ (58,736)	\$ (44,448)
BASIC LOSS PER SHARE			
As reported according to U.S. GAAP (see J below)	\$ (2.45)	\$ (1.63)	\$ (1.92)
Pro forma	\$ (2.63)	\$ (1.87)	\$ (2.27)

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
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NOTE 20 - MATERIAL DIFFERENCES BETWEEN ISRAEL AND U.S. GAAP (cont.)

E. SALE OF SECURITIES

Under Accounting Principles Board Opinion No. 14 ("APB 14"), the proceeds from the sale of the securities described in Notes 11 and 14E are to be allocated to each of the securities issued based on their relative fair value, while according to Israeli GAAP such treatment is not required. Complying with APB 14, based on the average market value of each of the securities issued in the first three days following their issuance, would have resulted in an increase in shareholders' equity in the amount of \$2,363 (net of \$196 related issuance expenses), and a decrease in convertible debentures in the amount of \$2,559. The effect of amortization of the discount on the convertible debentures under U.S. GAAP for each of the years ended December 31, 2003 and 2002 would have been immaterial.

F. PRESENTATION OF PROCEEDS ON ACCOUNT OF SHARES IN ACCORDANCE WITH U.S. GAAP (SFAS 150)

According to SFAS No. 150, "Accounting For Certain Financial Instruments with Characteristics of Both Liabilities and Equity", a financial instrument that embodies an unconditional obligation (as defined in that guidance), that the issuer must or may settle by issuing a variable number of its equity shares, shall be classified as a liability if, at inception, the monetary value of the obligation is based solely or predominantly on, among others, a fixed monetary amount known at inception. Accordingly, the \$13,201 and \$3,227 amounts which are described in detail in Notes 13A(3) and (4), respectively, and which according to Israeli GAAP are presented as "Proceeds on account of share capital", are reclassified under SFAS 150 as "Liability in respect of variable number of shares to be issued". Such presentation for the U.S. GAAP purposes is required since as of December 31, 2003, the amount of shares the Company is to issue in consideration of the aggregate of \$16,428 is not determined as of such

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date, and is actually based on mechanisms that embodies variable number of shares.

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TOWER SEMICONDUCTOR LTD.  
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
 (DOLLARS IN THOUSANDS, EXCEPT SHARE DATA AND PER SHARE DATA)

NOTE 20 - MATERIAL DIFFERENCES BETWEEN ISRAELI AND U.S. GAAP (CONT.)

G. BALANCE SHEETS IN ACCORDANCE WITH U.S. GAAP

	AS OF DECEMBER 31, 2003			
	U.S. GAAP REMARK	AS PER ISRAELI GAAP	ADJUST- MENTS	AS PER U.S. GAAP
<b>A S S E T S</b>				
<b>CURRENT ASSETS</b>				
CASH AND CASH EQUIVALENTS		\$ 12,448		\$ 12,448
SHORT-TERM INTEREST-BEARING DEPOSITS		--		--
CASH AND SHORT-TERM INTEREST-BEARING DEPOSITS DESIGNATED FOR INVESTMENTS RELATING TO FAB 2	A	44,042	(44,042)	--
TRADE ACCOUNTS RECEIVABLE (NET OF ALLOWANCE FOR DOUBTFUL ACCOUNTS OF \$0 AND \$155, RESPECTIVELY)		11,631		11,631
OTHER RECEIVABLES		11,073		11,073
INVENTORIES		19,382		19,382
OTHER CURRENT ASSETS		1,729		1,729
		-----	-----	-----
TOTAL CURRENT ASSETS		100,305	(44,042)	56,263
<b>LONG-TERM INVESTMENTS</b>				
LONG-TERM INTEREST-BEARING DEPOSITS DESIGNATED FOR INVESTMENTS RELATING TO FAB 2	A	4,848	(4,848)	--
OTHER LONG-TERM INVESTMENTS	B	6,000	14,607	20,607
		-----	-----	-----
		10,848	9,759	20,607
		-----	-----	-----
PROPERTY AND EQUIPMENT, NET	C	568,412	(5,947)	562,465
		-----	-----	-----
CASH AND SHORT-TERM AND LONG-TERM INTEREST-BEARING DEPOSITS DESIGNATED FOR INVESTMENTS RELATING TO FAB 2	A	--	48,890	48,890
		-----	-----	-----
OTHER ASSETS	E	108,770	(196)	108,574
		=====	=====	=====
TOTAL ASSETS		\$ 788,335	\$ 8,464	\$ 796,799
		=====	=====	=====
<b>LIABILITIES AND</b>				



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SHAREHOLDERS' EQUITY

CURRENT LIABILITIES					
SHORT-TERM DEBT		\$	--	\$	--
TRADE ACCOUNTS PAYABLE			40,249		40,249
OTHER CURRENT LIABILITIES	C		9,564		9,564
			-----		-----
TOTAL CURRENT LIABILITIES			49,813		49,813
LONG-TERM DEBT			431,000		431,000
CONVERTIBLE DEBENTURES	E		25,783	(2,559)	23,224
OTHER LONG-TERM LIABILITIES	B, C		5,935	24,527	30,462
LIABILITY IN RESPECT OF A VARIABLE NUMBER OF SHARES TO BE ISSUED	F		--	16,428	16,428
LONG-TERM LIABILITY IN RESPECT OF CUSTOMERS' ADVANCES			46,347		46,347
			-----		-----
TOTAL LIABILITIES			558,878	38,396	597,274
			-----		-----
SHAREHOLDERS' EQUITY					
ORDINARY SHARES, NIS 1 PAR VALUE - AUTHORIZED 150,000,000 SHARES; ISSUED 52,996,097 AND 44,735,532 SHARES, RESPECTIVELY			13,150		13,150
ADDITIONAL PAID-IN CAPITAL	E		427,881	2,363	430,244
SHAREHOLDER RECEIVABLES AND UNEARNED COMPENSATION			(26)		(26)
PROCEEDS ON ACCOUNT OF SHARE CAPITAL	F		16,428	(16,428)	--
ACCUMULATED OTHER COMPREHENSIVE LOSS	C		--	(15,897)	(15,897)
ACCUMULATED DEFICIT	H		(218,904)	30	(218,874)
			-----		-----
TREASURY STOCK, AT COST - 1,300,000 SHARES			238,529	(29,932)	208,597
			(9,072)		(9,072)
			-----		-----
TOTAL SHAREHOLDERS' EQUITY			229,457	(29,932)	199,525
			=====		=====
TOTAL LIABILITIES AND SHAREHOLDERS' EQUIT			\$ 788,335	\$ 8,464	\$ 796,799
			=====		=====

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TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY  
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(dollars in thousands, except share data and per share data)

NOTE 20 - MATERIAL DIFFERENCES BETWEEN ISRAEL AND U.S. GAAP (cont.)

H. STATEMENTS OF OPERATIONS IN ACCORDANCE WITH U.S. GAAP

Complying with SFAS 133 and SFAS 138 would not have affected the results of operations for the years ended December 31, 2003 and 2002. The effect on the results of operations for the year ended December 31, 2001 as a result of complying with SFAS 133 and SFAS 138 would be

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additional financing income (and a reduction of the loss) in the amount of \$30. Accordingly, the Company's loss for the year ended December 31, 2001 would have been \$38,492.

### I. COMPREHENSIVE INCOME IN ACCORDANCE WITH U.S. GAAP (SFAS 130)

Comprehensive income (loss) represents the change in shareholder's equity during a reporting period from transactions and other events and circumstances from non-owner sources. It includes all changes in equity during a reporting period except those resulting from investments by owners and distributions to owners. Other comprehensive income (loss) represents gains and losses that under U.S. GAAP are included in comprehensive income but excluded from net income. Following are statements of comprehensive loss in accordance with U.S. GAAP:

	Year Ended December 31,		
	2003	2002	2001
Loss for the year according to U.S. GAAP	\$ (114,261)	\$ (51,402)	\$ (38,492)
Other comprehensive loss:			
Realized gain on securities arising during the year	--	--	(9,500)
Adjustment of unrealized gain on securities arising during previous year	--	--	(3,000)
Amortization of unrealized losses on derivatives	664	--	--
Unrealized gains (losses) on derivatives	1,276	(9,638)	(8,100)
Net comprehensive loss for the year	\$ (112,321)	\$ (61,040)	\$ (59,200)

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

NOTE 20 - MATERIAL DIFFERENCES BETWEEN ISRAEL AND U.S. GAAP (cont.)

### J. LOSS PER SHARE DATA IN ACCORDANCE WITH U.S. GAAP (SFAS 128)

In accordance with U.S. GAAP (SFAS 128, including the implementation of SFAS 133 and SFAS 138 as described above), the basic and diluted loss per share would be:

Year Ended December 31,  
 -----

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	2003 ----	2002 ----	2001 ----
Basic loss per share	\$ (2.45) =====	\$ (1.63) =====	\$ (1.95) =====
Diluted loss per share	\$ (2.45) =====	\$ (1.63) =====	\$ (1.95) =====

The following tables provide a reconciliation of the numerators and denominators of the basic and diluted per share computations for 2003, 2002 and 2001 in accordance with U.S. GAAP. The loss per share for each year presented according to U.S. GAAP may differ from the corresponding amount under Israeli GAAP due to different methods for determining the weighted average number of ordinary shares outstanding and the loss used to compute loss per share. According to Israeli GAAP, the weighted average number of ordinary shares outstanding for each year presented include retroactive effect from the beginning of each year of shares issued upon exercise of share options and warrants ("Exercise") and upon conversion of convertible debentures ("Conversion"), outstanding at the beginning of each year and giving effect to shares issuable from probable Exercise and from probable Conversion. IL GAAP further provide that loss per ordinary share is to be calculated based on loss for the year with the inclusion of imputed interest income on the exercise price of options and warrants exercised or of probable Exercise, and of financial expenses in relation to converted debentures or on probable Conversion. According to U.S. GAAP, the amount of shares underlying the options, warrants and convertible debentures is accounted for according to the treasury method, regardless of the probability of the exercise of the options and warrants or the conversion into shares of the convertible debentures. According to Israeli GAAP, the loss to compute loss per share may include imputed interest income on the exercise price of options and warrants exercised during the year and of probable Exercise and probable Conversion, an inclusion which is not required by U.S. GAAP.

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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 20 - MATERIAL DIFFERENCES BETWEEN ISRAEL AND U.S. GAAP (cont.)

J. LOSS PER SHARE DATA IN ACCORDANCE WITH U.S. GAAP (SFAS 128) (cont.)

RECONCILIATION FOR 2003:

Year ended December 31, 2003

-----  
Shares

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Basic Loss Per Share	Loss (Numerator)	(in thousands) (Denominator)	Per-share Amount
-----	-----	-----	-----
Loss available to ordinary shareholders	\$ (114,261)	46,710	\$ (2.45)
			=====
EFFECT OF DILUTIVE SECURITIES			
Convertible debentures	--	--	
Options and warrants	--	--	
	-----	-----	
DILUTED LOSS PER SHARE			
Loss available to ordinary shareholders after assumed conversions	\$ (114,261)	46,710	\$ (2.45)
	=====	=====	=====

Options and warrants to purchase 14,003,621 Ordinary Shares at an average exercise price of \$7.87 per share were outstanding as of December 31, 2003 but were not included in the computation of diluted loss per share because their effect was anti-dilutive. The options and warrants, which as of December 31, 2003 expire between April 2005 and December 2013 (weighted average remaining contractual life of 5.02 years), were still outstanding as of such date. Convertible debentures, convertible into 2,697,068 Ordinary Shares, were outstanding as of December 31, 2003 but were not included in the computation of diluted loss per share since their effect is anti-dilutive. The convertible debentures may be converted until December 31, 2008 into Ordinary Shares.

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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 20 - MATERIAL DIFFERENCES BETWEEN ISRAEL AND U.S. GAAP (cont.)

J. LOSS PER SHARE DATA IN ACCORDANCE WITH U.S. GAAP (SFAS 128) (cont.)

RECONCILIATION FOR 2002:

	Year ended December 31, 2002		
	Loss (Numerator)	Shares (in thousands) (Denominator)	Per-share Amount
	-----	-----	-----
BASIC LOSS PER SHARE			
Loss available to ordinary shareholders	\$ (51,402)	31,523	\$ (1.63)
			=====
EFFECT OF DILUTIVE SECURITIES			
Convertible debentures	--	--	
Options and warrants	--	--	

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DILUTED LOSS PER SHARE	-----	-----	
Loss available to ordinary shareholders after assumed conversions	\$ (51,402) =====	31,523 =====	\$ (1.63) =====

Options and warrants to purchase 10,053,578 Ordinary Shares at an average exercise price of \$9.12 per share were outstanding as of December 31, 2002 but were not included in the computation of diluted loss per share because their effect was anti-dilutive. The options and warrants, which as of December 31, 2002 expire between April 2005 and December 2012 (weighted average remaining contractual life of 4.9 years), were still outstanding as of such date. Convertible debentures, convertible into 2,697,068 Ordinary Shares, were outstanding as of December 31, 2002 but were not included in the computation of diluted loss per share since their effect is anti-dilutive. The convertible debentures may be converted until December 31, 2008 into Ordinary Shares.

RECONCILIATION FOR 2001:

	Year ended December 31, 2001		
	Loss (Numerator)	Shares (in thousands) (Denominator)	Per-share Amount
	-----	-----	-----
BASIC LOSS PER SHARE			
Loss available to ordinary shareholders	\$ (38,492)	19,724	\$ (1.95) =====
EFFECT OF DILUTIVE SECURITIES			
Options and warrants	--	--	
	-----	-----	
DILUTED LOSS PER SHARE			
Loss available to ordinary Shareholders after assumed conversions	\$ (38,492) =====	19,724 =====	\$ (1.95) =====

Options and warrants to purchase 4,117,770 Ordinary Shares at an average exercise price of \$11.39 per share were outstanding as of December 31, 2001 but were not included in the computation of diluted loss per share because their effect was anti-dilutive. The options and warrants, which as of December 31, 2001 expire between April 2005 and December 2011 (weighted average remaining contractual life of 6.84 years), were still outstanding as of such date.

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SIGNATURES

Pursuant to the requirements of Section 12 of the Securities Exchange Act

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of 1934, the registrant certifies that it meets all the requirements for filing on Form 20-F and has duly caused this Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized on this 1st day of March, 2004.

TOWER SEMICONDUCTOR LTD.

By: /s/ Carmel Vernia

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Carmel Vernia  
Chairman and Chief Executive Officer