

TOWER SEMICONDUCTOR LTD

Form F-3

September 20, 2010

As filed with the Securities and Exchange Commission on September 20, 2010

Registration No. 333-[_____]

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM F-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

TOWER SEMICONDUCTOR LTD.
(Exact name of Registrant as specified in its charter)

Israel
(State or other jurisdiction of incorporation or organization)

Not Applicable
(I.R.S. Employer Identification No.)

P.O. Box 619
Migdal Haemek, Israel, 23105
972-4-650-6611
(Address and telephone number of Registrant's principal executive offices)

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San Jose, California 95129
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(Name, address and telephone number of agent for service)
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11 East 44th Street
New York, NY 10017
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Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this registration statement.

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

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

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

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

If this form is a registration statement pursuant to General Instruction I.C. or a post effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. o

If this form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.C. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. o

Calculation of Registration Fee				
Title of each class of securities to be registered	Amount to be registered(1)	Proposed maximum offering price per unit(2)	Proposed maximum aggregate offering price(1)(2)	Amount of registration fee
Ordinary Shares, par value NIS 1.00 per share				
Capital Notes				
Debt Securities				
Purchase Contracts				
Warrants				
Units				
Total			\$ 50,000,000	\$ 3,565.00 (3)

- (1) This registration statement covers offers, sales and distributions of an indeterminate number or aggregate principal amount of the registered securities which the registrant may from time to time issue at indeterminate prices. The aggregate maximum offering price of all securities covered by this registration statement will not exceed \$50,000,000 or if the registrant issues any debt securities at an original issuance discount, such greater amount as shall result in proceeds of \$50,000,000 to the registrant. The securities covered by this registration statement may be sold separately or as units with other classes of the registered securities. The securities covered by this registration statement also include such indeterminate numbers of ordinary shares and amount of capital notes and debt securities as may be issued upon conversion of or exchange for capital notes, debt securities or purchase contracts that provide for conversion or exchange, upon exercise of warrants or pursuant to the anti-dilution provisions of any such securities.
- (2) The registrant will determine the proposed maximum offering price per unit and the proposed maximum aggregate offering price per class from time to time in connection with the issuance of the registered securities. The proposed maximum aggregate offering price for each class is omitted pursuant to General Instruction II.C of Form F-3 under the Securities Act of 1933.
- (3) Calculated in accordance with Rule 457(o) under the Securities Act of 1933.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration

Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.



The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION

DATED SEPTEMBER 20, 2010

PROSPECTUS

\$50,000,000
Ordinary Shares
Capital Notes
Debt Securities
Purchase Contracts
Warrants
Units

We may offer under this prospectus from time to time, at prices and on terms to be determined by market conditions at the time we make the offer, up to an aggregate of \$50,000,000 of our:

- ordinary shares;
- capital notes;
- debt securities (including convertible debt securities);
- purchase contracts;
- warrants to purchase ordinary shares or debt securities; or
- any combination of the above, separately or as units.

This prospectus may not be used to sell our securities unless accompanied by a prospectus supplement. Before you invest in our securities, you should carefully read both this prospectus and the prospectus supplement related to the offering of the securities.

Our ordinary shares are listed on the Nasdaq Global Market under the symbol "TSEM" and on the Tel Aviv Stock Exchange in Israel under the symbol "TSEM." On September 16, 2010, the last reported sale price of our ordinary shares on the Nasdaq Global Market was \$1.38 per share and on the Tel Aviv Stock Exchange was NIS 5.17 per share. We have not yet determined whether any of the other securities that may be offered by this prospectus will be listed on any exchange, inter-dealer quotation system or over-the-counter market. If we decide to seek listing of any such securities, a prospectus supplement relating to those securities will disclose the exchange, quotation system or market on which the securities will be listed.

If we sell securities through agents or underwriters, we will include their names and the fees, commissions and discounts they will receive, as well as the net proceeds to us, in the applicable prospectus supplement.

The securities offered hereby involve a high degree of risk. See “Risk Factors” on page 2.

None of the U.S. Securities and Exchange Commission, the Israeli Securities Authority or any state securities commission have approved or disapproved of these securities or passed upon the adequacy, completeness or accuracy of this prospectus. Any representation to the contrary is a criminal offense under the laws of the United States and the laws of the State of Israel.

The date of this prospectus is _____, 2010

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Manufacturing or production capacity refers to installed equipment capacity in our facilities and is a function of the process technology and product mix being manufactured as certain processes require more processing steps than others. All information herein with respect to the wafer 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 the relevant 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.

PROSPECTUS SUMMARY

This is a summary of our business and this offering. For a more complete understanding of our business and this offering, you should read the entire prospectus and the documents incorporated by reference.

Company Overview

We are a pure-play independent specialty wafer foundry dedicated to the manufacture of semiconductors. Typically, pure-play foundries do not offer products of their own, but focus on producing integrated circuits, or ICs, based on the design specifications of their customers. We manufacture semiconductors for our customers primarily based on third party designs and our own process technology and engineering support. We currently offer the manufacture of ICs with geometries ranging from 1.0 to 0.13-micron. We also provide design services and complementary technical services. ICs manufactured by us are incorporated into a wide range of products in diverse markets, including consumer electronics, personal computers, communications, automotive, industrial and medical device products.

In January 2001, we commenced construction of a state-of-the-art wafer fabrication facility, which we refer to as Fab 2, located in Migdal Haemek, Israel and adjacent to our first facility, Fab 1. In 2003, we completed the infrastructure of Fab 2 and commenced production at this Fab. Fab 2 is designed to operate in geometries of 0.18-micron and below, using advanced materials and advanced CMOS technology licensed from Freescale and Toshiba and other technologies that we developed and will develop independently or with development partners. Depending on the process technology and product mix, when fully ramped-up, we estimate that Fab 2 will be able to achieve capacity levels of approximately 40,000 wafers per month. We have not completed the full ramp-up of Fab 2. The timing of that decision and its implementation will depend upon several factors, including funding, cost and availability of equipment and market conditions.

In September 2008, we acquired Jazz Technologies in a stock for stock transaction. Jazz is an independent semiconductor foundry focused on specialty process technologies for the manufacture of analog and mixed-signal semiconductor devices. Jazz's specialty process technologies include advanced analog, radio frequency, high voltage, bipolar and silicon germanium bipolar complementary metal oxide ("SiGe") semiconductor processes, for the manufacture of analog and mixed-signal semiconductors. Jazz's customers use the analog and mixed-signal semiconductor devices in products they design that are used in cellular phones, wireless local area networking devices, digital TVs, set-top boxes, gaming devices, switches, routers and broadband modems. Jazz operates one semiconductor fabrication facility in Newport Beach, California, in which it currently produces the majority of its products and in which all of Jazz's process research and development is performed.

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

Additional information about us and our operations may be found at our web site: www.towerjazz.com. Information on our website is not incorporated by reference in this prospectus.

The Offering

This prospectus is part of a registration statement on Form F-3 that we filed with the Securities and Exchange Commission utilizing a “shelf” registration process. Under this process, we may sell any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of \$50 million. This prospectus provides you with a general description of the securities we may offer. Each time we offer to sell securities under this prospectus, we will provide a prospectus supplement containing specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. To the extent that any information we provide in a prospectus supplement is inconsistent with information in this prospectus, the information in the prospectus supplement will modify or supersede this prospectus. You should read both this prospectus and any prospectus supplement together with the additional information described under the headings “Where You Can Find More Information; Incorporation of Information by Reference.”

RISK FACTORS

An investment in our securities is speculative and involves a high degree of risk. Therefore, you should not invest in our securities unless you are able to bear a loss of your entire investment. You should carefully consider the risk factors described in our periodic reports filed with the SEC, including those specified in Exhibit 99.1 to our Report on Form 6-K for the month of September 2010 No. 1, filed with the SEC on September 7, 2010 in the section captioned “Risk Factors”, which is incorporated by reference in this prospectus. You should carefully consider those risks together with the other information in this prospectus before deciding to invest in our securities. If any of those risks actually occur, our business, financial condition and results of operations could be materially and adversely affected. In that case, the trading price of our ordinary shares could decline, and you may lose all or part of your investment.

NOTE CONCERNING FORWARD-LOOKING STATEMENTS

The statements incorporated by reference or contained in this prospectus discuss our future expectations, contain projections of our results of operations or financial condition, and include other forward-looking information within the meaning of Section 27A of the Securities Act of 1933, as amended. You should not unduly rely on forward-looking statements contained or incorporated by reference in this prospectus. Our actual results and performance may differ materially from those expressed in such forward-looking statements. Forward-looking statements that express our beliefs, plans, objectives, assumptions, future events or performance may involve estimates, assumptions, risks and uncertainties. Such risks and uncertainties are discussed in this prospectus under the heading “Risk Factors”, and in our other filings with the Securities and Exchange Commission, which are also filed with the Israel Securities Authority. You should read and interpret any forward-looking statements together with these documents. Forward-looking statements often, although not always, include words or phrases such as the following: “will likely result,” “are expected to,” “will continue,” “is anticipated,” “estimate,” “intends,” “plans,” “projection” and “outlook.”

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

WHERE YOU CAN FIND MORE INFORMATION; INCORPORATION OF
INFORMATION BY REFERENCE

We have filed a registration statement on Form F-3 with the Securities and Exchange Commission in connection with this offering. In addition, we file reports with, and furnish information to, the Securities and Exchange Commission. You may read and copy the registration statement and any other documents we have filed at the Securities and Exchange Commission, including any exhibits and schedules, at the Securities and Exchange Commission's public reference room at 100 F Street N.E., Washington, D.C. 20549. You may call the Securities and Exchange Commission at 1-800-SEC-0330 for further information on this public reference room. As a foreign private issuer, all documents which were filed after November 4, 2002 on the Securities and Exchange Commission's EDGAR system are available for retrieval on the Securities and Exchange Commission's website at www.sec.gov. These Securities and Exchange Commission filings are also available to the public on the Israel Securities Authority's Magna website at www.magna.isa.gov.il and from commercial document retrieval services. We also generally make available on our own web site (www.towersemi.com) our quarterly and year-end financial statements as well as other information.

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

The Securities and Exchange Commission allows us to "incorporate by reference" into this prospectus the information we file with it, which means that we can disclose important information to you by referring you to those documents. Information incorporated by reference is part of this prospectus. We incorporate by reference the documents listed below and amendments to them. These documents and their amendments were previously filed with the Securities and Exchange Commission.

This prospectus will be deemed to incorporate by reference the following documents previously filed by us with the Securities and Exchange Commission:

Annual report on Form 20-F for the year ended December 31, 2009, filed on April 30, 2010, to the extent the information in that report has not been updated or superseded by this prospectus;

Report on Form 6-K dated August 2010 No. 2 (filed on August 13, 2010);

Report on Form 6-K dated September 2010 No. 1 (filed on September 7, 2010); and

any report on Form 6-K, or parts thereof, meeting the requirements of Form F-3 filed after the date of the initial registration statement and prior to its effectiveness, which states that it, or any part thereof, is being incorporated by reference herein.

This prospectus shall also be deemed to incorporate by reference all subsequent annual reports filed on Form 20-F, Form 40-F or Form 10-K, and all subsequent filings on Forms 10-Q and 8-K filed by the registrant pursuant to the Exchange Act, prior to the termination of the offering made by this prospectus. We may incorporate by reference into this prospectus, any Form 6-K meeting the requirements of Form F-3 which is submitted to the Securities and Exchange Commission after the date of the filing of the registration statement being filed in connection with this offering and before the date of termination of this offering. Any such Form 6-K which we intend to so incorporate shall state in such form that it is being incorporated by reference into this prospectus.

We will provide to each person, including any beneficial owner, to whom this prospectus is delivered, a copy of these filings, at no cost, upon written or oral request to us at: Ramat Gavriel Industrial Park, Post Office Box 619, Migdal Haemek, 23105 Israel, Attn: Corporate Secretary, telephone number: 972-4-650-6109. Copies of these filings may also be accessed at our website, www.towerjazz.com. Click on "Investor Relations" and then "Filings."

A copy of this prospectus, our memorandum of association and our articles of association, are available for inspection at our offices at Shaul Amor Avenue, Ramat Gavriel Industrial Park, Migdal Haemek, Israel and on the Israel Securities Authority's Magna website, www.magna.isa.gov.il.

As a foreign private issuer, we are exempt from the rules under Section 14 of 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.

RATIO OF EARNINGS TO FIXED CHARGES

Our ratio of earnings to fixed charges in accordance with US GAAP for the periods presented are as follows:

	Six months ended June 30, (unaudited) 2010	2009	Year Ended December 31,			
			2008	2007	2006	2005
Ratio of earnings to fixed charges	(1)	(2)	(3)	(4)	(5)	(6)

- (1) Earnings as adjusted were inadequate to cover fixed charges by \$38.7 million for the six months ended June 30, 2010.
- (2) Earnings as adjusted were inadequate to cover fixed charges by \$125.5 million in 2009.
- (3) Earnings as adjusted were inadequate to cover fixed charges by \$240.2 million in 2008.
- (4) Earnings as adjusted were inadequate to cover fixed charges by \$144.3 million in 2007.
- (5) Earnings as adjusted were inadequate to cover fixed charges by \$173.6 million in 2006.
- (6) Earnings as adjusted were inadequate to cover fixed charges by \$201.7 million in 2005.

For the purpose of these computations, earnings have been calculated as the sum of (i) pretax income from continuing operations and (ii) amortization of capitalized interest offset by interest capitalized. Fixed charges consist of the sum of (i) interest expensed and capitalized, amortized premiums, discounts and capitalized expenses related to indebtedness and (ii) an estimate of the interest within rental expense (calculated based on a reasonable approximation of the interest factor).

CAPITALIZATION

The following table sets forth our long-term debt, debentures and capitalization as of June 30, 2010. This table was prepared in accordance with the US GAAP and the financial data is derived from our unaudited interim consolidated financial statements as of June 30, 2010.

	(US dollars in thousands)
Short term bank loan	\$ 12,000
Long-term bank loans	160,941
Debentures	230,580
Long-term customers' advances	7,940
Other long-term liabilities	58,999
Shareholders' equity:	
Ordinary Shares, NIS 1.00 par value per share; 1,100,000,000 authorized shares, 235,812,789 issued shares* and 234,512,789 outstanding shares	\$ 59,741
Additional paid-in capital	736,859
Capital notes	311,472
Equity component of convertible debentures and cumulative stock based compensation	25,988
Accumulated other comprehensive loss	(1,472)
Accumulated deficit	(1,054,340)
Treasury stock, 1,300,000 shares	(9,072)
Total shareholders' equity	69,176
Total capitalization	\$ 648,232

*Includes 1,300,000 treasury shares

The information set forth on an actual basis in the foregoing table excludes the following securities as of August 31, 2010

- (i) approximately 26.1 million ordinary shares issuable upon exercise of options granted to employees and directors at a weighted average exercise price of \$1.14;
- (ii) 23.4 million ordinary shares issuable upon exercise of options granted to our Chief Executive Officer at a weighted average exercise price of \$1.15;
- (iii) 11.5 million ordinary shares issuable upon exercise of options granted to our Chairman of the Board at an exercise price of \$0.29;
- (iv) 2.5 million ordinary shares issuable upon exercise of warrants issued to our banks with an exercise price of \$2.04 per share exercisable until December 2015;
- (v) 0.9 million ordinary shares issuable upon exercise of warrants issued to our banks in connection with our credit facility with an exercise price of \$6.17 per share exercisable until December 2015;

- (vi) 1.1 million ordinary shares issuable upon exercise of warrants issued to our banks in connection with our credit facility with an exercise price of \$0.89 per share exercisable until December 2015;
- (vii) 26.5 million ordinary shares issuable upon conversion of our debentures convertible series E until January 2013, issued pursuant to our June 2007 public offering in Israel at conversion rate of approximately \$1.10;
- (viii) 8.3 million ordinary shares issuable upon exercise of warrants we issued to our banks with an exercise price of \$1.21 in connection with the July 2005 amendment to our facility agreement exercisable until December 2015;
- (ix) 9.4 million ordinary shares issuable upon conversion of our debentures convertible series B until January 2012, pursuant to the prospectus dated December 15, 2005 at conversion rate of \$1.10;
- (x) 96.4 million ordinary shares issuable upon conversion of the equity equivalent convertible capital notes we issued to each of our two banks and 206.1 million such notes issued to Israel Corp.;
- (xi) 8 million ordinary shares issuable upon exercise of warrants series 6, with an exercise price of \$1.06 per share and exercisable until August 2011;
- (xii) 5.2 million ordinary shares issuable upon exercise of warrants series 5 sold in our private placements completed in November 2006, with an exercise price of approximately \$2.7 per share and exercisable until December 2010;
- (xiii) 28.9 million ordinary shares issuable upon conversion of our debentures convertible series C until December 2011, issued pursuant to our June 2006 public offering in Israel at conversion rate of approximately \$1.10;
- (xiv) 5.3 million ordinary shares issuable upon exercise of the warrants series I issued in our March 2007 private placement at exercise price of \$0.74 exercisable until March 2012;
- (xv) 59.5 million ordinary shares issuable upon exercise of warrants, with an exercise price of approximately \$2.78 per share and exercisable until March 2011;
- (xvi) 10.7 million ordinary shares issuable upon conversion of our debentures convertible until December 2011 at conversion rate of \$4.07; and
- (xvii) 25.3 million ordinary shares issuable upon exercise of warrants series J, with an exercise price of \$1.70 per share and exercisable until June 2015.

This information does not take into account certain potential dilutive issuances of securities pursuant to our credit facility agreement and warrants issuable to our banks since the number of shares issuable will depend upon future transactions in which we may engage and/or the market price of our shares and/or other conditions.

PRICE RANGE OF ORDINARY SHARES

Our ordinary shares are listed and traded on the Nasdaq Global Market under the symbol "TSEM". In addition, in January 2001, our ordinary shares commenced trading on the Tel Aviv Stock Exchange (TASE) under the symbol "TSEM".

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The following table sets forth, for the periods indicated, the high and low reported sales prices of the ordinary shares on the Nasdaq Global Market and Tel Aviv Stock Exchange:

Period	NASDAQ Global Market		Tel Aviv Stock Exchange	
	High (\$)	Low (\$)	High (NIS)	Low (NIS)
August 2010	1.66	1.25	6.12	5.25
July 2010	1.50	1.31	5.96	5.15
June 2010	1.60	1.28	6.10	5.02
May 2010	1.74	1.25	6.35	4.90
April 2010	1.73	1.47	6.48	5.61
March 2010	1.87	1.55	7.02	5.82
Third quarter 2010 through September 16, 2010	1.66	1.25	6.12	5.04
Second quarter 2010	1.74	1.25	6.48	4.90
First quarter 2010	1.87	0.99	7.02	3.71
Fourth quarter 2009	1.18	0.89	4.51	3.35
Third quarter 2009	1.49	0.33	5.13	1.36
Second quarter 2009	0.39	0.19	1.49	0.84
First quarter 2009	0.24	0.13	1.02	0.50
Fourth quarter 2008	0.54	0.09	1.91	0.36
Third quarter 2008	0.86	0.43	2.80	1.70
Second quarter 2008	1.25	0.81	4.13	2.75
First quarter 2008	1.45	0.74	5.50	2.63
2009	1.49	0.13	5.13	0.50
2008	1.45	0.09	5.50	0.36
2007	2.08	1.20	8.88	5.25
2006	2.18	1.22	9.14	5.11
2005	2.38	0.92	10.30	5.10

On September 16, 2010, the last reported sale price of the ordinary shares was \$1.38 on the Nasdaq Global Market and NIS 5.17 on the Tel Aviv Stock Exchange.

USE OF PROCEEDS

Unless we state otherwise in a prospectus supplement, we will use the net proceeds from the sale of securities under this prospectus for general corporate purposes. From time to time, we may evaluate the possibility of acquiring businesses, products, equipment tools and technologies, and we may use a portion of the proceeds as consideration for acquisitions. Until we use net proceeds for these purposes, we may invest them in interest-bearing securities.

DILUTION

We will set forth in a prospectus supplement the following information regarding any material dilution of the equity interests of investors purchasing securities in an offering under this prospectus:

- the net tangible book value per share of our equity securities before and after the offering;
- the amount of the increase in such net tangible book value per share attributable to the cash payments made by purchasers in the offering; and
- the amount of the immediate dilution from the public offering price which will be absorbed by such purchasers.

DESCRIPTION OF SHARE CAPITAL

Ordinary Shares

Our authorized share capital consists of 1.1 billion ordinary shares, par value NIS 1.00 per share. Under our articles of association, the ordinary shares do not have preemptive rights. We may from time to time, by approval of a majority of our shareholders, increase our authorized share capital. All ordinary shares are registered shares, rather than bearer shares.

The ownership or voting rights of our ordinary shares by non-residents of Israel is not restricted in any way by our memorandum of association or articles of association. The State of Israel does not restrict in any way the ownership or voting rights of ordinary shares of Israeli entities by non-residents of Israel, except with respect to subjects of countries that are in a state of war with Israel. Our ordinary shares do not have cumulative voting rights for the election of directors. The affirmative vote of the shareholders present in person or by proxy that represent more than 50% of the voting power present in person or by proxy have the power to elect all nominees up for election to our board of directors. The election of an external director also requires that either: (i) this majority include the affirmative vote of at least one-third of the shares held by non-controlling shareholders; or (ii) the total number of shares held by non-controlling shareholders that voted against the election of the nominee external director does not exceed one percent of the aggregate voting rights in the company.

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

Holders of ordinary shares have one vote for each ordinary share held on all matters submitted to a vote of shareholders. Subject to the provisions set forth in Section 46B of the Israeli Securities Law, these voting rights may be affected by the grant of any special voting rights to the holders of a class of shares with preferential rights that may be authorized in the future. Our major shareholders do not have different voting rights from each other or other shareholders. However, certain of our shareholders have entered into a shareholders agreement pursuant to which they may be able to exercise control over matters requiring shareholder approval, including the election of directors.

Resolutions of shareholders (e.g. resolutions amending our articles of association, electing or removing directors, appointing an independent registered public accounting firm, authorizing changes in capitalization or the rights attached to our shares or approving a wind-up or merger), in general, require the affirmative vote (at a meeting convened upon advance notice of no less than thirty five days) of shareholders present in person or by proxy and holding shares conferring, in the aggregate, at least a majority of the votes actually cast on such resolutions.

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

Our registration number at the Israeli Registrar of Companies is 52-004199-7.

The objective stated in our memorandum of association and our articles of association is to engage in any lawful activity.

Modification or abrogation of the rights of any existing class of shares requires either the written consent of all of the holders of the issued shares of such class or the adoption of a resolution by an ordinary majority of a general meeting of holders of such class. The quorum required for a class meeting is at least two shareholders present, in person or by proxy, within half an hour of the time fixed for the meeting's commencement that together hold shares conferring in the aggregate at least 51% of the total voting power of the issued shares of such class. If no quorum is present, the meeting shall be adjourned to another time and at the adjourned meeting a quorum shall be constituted in the presence of any number of participants, regardless of the number of shares held by them.

We had 255.0 million ordinary shares outstanding as of August 31, 2010. The above number of outstanding ordinary shares does not include 1.3 million treasury shares held by us through a trustee.

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

DESCRIPTION OF CAPITAL NOTES

We may from time to time offer and sell under this prospectus capital notes, which we sometimes refer to as equity equivalent capital notes. When we offer to sell a particular series of capital notes, we will describe the specific terms of the series in a prospectus supplement. We will also indicate in the prospectus supplement whether the general terms and provisions described in this prospectus apply to a particular series of capital notes.

The capital notes are instruments of equity and not debt. Unless otherwise specified in a prospectus supplement, (i) the face amounts of the capital notes will not bear interest nor will they be linked to any index, (ii) the face amounts of the capital notes will only be payable by us out of distributions made upon the winding-up, liquidation or dissolution of our company on a pari passu and pro rata basis with the holders of our ordinary shares and (iii) we will have no right to prepay or redeem the equity equivalent capital notes. In addition, the holder may at any time, convert the face amount of the equity equivalent capital notes, in whole or in part, without payment of any additional consideration, into ordinary shares at a conversion price agreed with the holder. The equity equivalent capital notes have no maturity date and the right to convert into shares does not expire.

The terms of any particular series of equity equivalent capital notes will be set forth in the purchase agreement with the purchasers and the governing capital note certificate, each of which will be incorporated by reference as an exhibit to the registration statement of which this prospectus forms a part. The foregoing summary of the equity equivalent capital notes is not complete. We encourage you to read the purchase agreement and capital note certificate, because they, and not this summary, will govern your rights as a holder of equity equivalent capital notes.

DESCRIPTION OF DEBT SECURITIES

This prospectus describes the general terms and provisions of the debt securities we may offer and sell by this prospectus. When we offer to sell a particular series of debt securities, we will describe the specific terms of the series in a prospectus supplement. We will also indicate in the prospectus supplement whether the general terms and provisions described in this prospectus apply to a particular series of debt securities.

We may offer under this prospectus up to \$50,000,000 in aggregate principal amount of debt securities, or if debt securities are issued at a discount, or in a foreign currency or composite currency, such principal amount as may be sold for an initial offering price of up to \$50,000,000. We may offer debt securities in the form of either senior debt securities or subordinated debt securities. The senior debt securities and the subordinated debt securities are together referred to in this prospectus as the “debt securities.” Unless otherwise specified in a prospectus supplement, the senior debt securities will be our direct, unsecured obligations and will rank equally with all of our other unsecured and unsubordinated indebtedness. The subordinated debt securities generally will be entitled to payment only after payment of our senior debt.

The debt securities will be issued under an indenture between us and a trustee, the form of which is incorporated by reference as an exhibit to the registration statement of which this prospectus forms a part. We have summarized the general features of the debt securities to be governed by the indenture. The summary is not complete. The executed indenture will be incorporated by reference from a report on Form 6-K. We encourage you to read the indenture, because the indenture, and not this summary, will govern your rights as a holder of debt securities. Capitalized terms used in this summary will have the meanings specified in the indenture. References to “we,” “us” and “our” in this section, unless the context otherwise requires or as otherwise expressly stated, refer to Tower Semiconductor Ltd., excluding its subsidiaries.

Additional Information

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors, or a committee thereof, and set forth or determined in the manner provided in an officers’ certificate or by a supplemental indenture. The particular terms of each series of debt securities will be described in a prospectus supplement relating to such series, including any pricing supplement.

We may issue an unlimited amount of debt securities under the indenture, and the debt securities may be in one or more series with the same or various maturities, at par, at a premium or at a discount. Except as set forth in any prospectus supplement, we will also have the right to “reopen” a previous series of debt securities by issuing additional debt securities of such series without the consent of the holders of debt securities of the series being reopened or any other series. Any additional debt securities of the series being reopened will have the same ranking, interest rate, maturity and other terms as the previously issued debt securities of that series. These additional debt securities, together with the previously issued debt securities of that series, will constitute a single series of debt securities under the terms of the applicable indenture.

We will set forth in a prospectus supplement, including any pricing supplement, relating to any series of debt securities being offered, the aggregate principal amount and other terms of the debt securities, which will include some or all of the following:

- the title;
- any limit on the amount that may be issued;
- whether or not we will issue the series of debt securities in global form, and, if so, the terms and the name of the depository;
- the maturity date;
- the interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- whether or not the debt securities will be secured or unsecured, and the terms of any securities;
- classification as senior or subordinated debt securities;
- in the case of subordinated debt securities, the degree, if any, to which the subordinated debt securities of the series will be senior to or be subordinated to other indebtedness of ours in right of payment, whether the other indebtedness is outstanding or not;
- the terms on which any series of debt securities may be convertible into or exchangeable for our common stock or other of our securities, including (a) provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option, and (b) provisions pursuant to which the number of shares of common stock or other securities of ours that the holders of the series of debt securities receive would be subject to adjustment;
- the place where payments will be payable;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- the date, if any, after which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional redemption provisions;
- the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund provisions or otherwise, to redeem, or at the holder’s option to purchase, the series of debt

securities;

- whether the indenture will restrict our ability to pay dividends, or will require us to maintain any asset ratios or reserves;
- whether we will be restricted from incurring any additional indebtedness;
- any listing of a series of debt securities on a securities exchange or market;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities.

We will provide information on the applicable United States and Israeli income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of, and premium and interest on, any series of debt securities is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and such foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Transfer and Exchange

Each debt security will be represented by either one or more global securities registered in the name of The Depository Trust Company, as Depository, or a nominee (we will refer to any debt security represented by a global debt security as a “book-entry debt security”), or a certificate issued in definitive registered form (we will refer to any debt security represented by a certificated security as a “certificated debt security”) as set forth in the applicable prospectus supplement.

You may transfer or exchange certificated debt securities at any office we maintain for this purpose in accordance with the terms of the indenture. No service charge will be made for any transfer or exchange of certificated debt securities, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange.

You may effect the transfer of certificated debt securities and the right to receive the principal of, and any premium and interest on, certificated debt securities only by surrendering the certificate representing those certificated debt securities and either reissuance by us or the trustee of the certificate to the new holder or the issuance by us or the trustee of a new certificate to the new holder.

No Protection in the Event of a Change of Control

Unless we state otherwise in the applicable prospectus supplement, the debt securities will not contain any provisions which may afford holders of the debt securities protection in the event we undergo a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control) which could adversely affect holders of debt securities.

Covenants

We will set forth in the applicable prospectus supplement any restrictive covenants applicable to any issue of debt securities.

Consolidation, Merger and Sale of Assets

We may not consolidate with or merge with or into, or convey, transfer or lease all or substantially all of our properties and assets to, any person, which we refer to as a successor person, unless:

- we are the surviving corporation or the successor person (if other than us) expressly assumes our obligations on the debt securities and under the indenture;
- immediately after giving effect to the transaction, no event of default, and no event which, after notice or lapse of time, or both, would become an event of default, shall have occurred and be continuing under the indenture; and
- certain other conditions are met, including any additional conditions described in the applicable prospectus supplement.

Events of Default

Event of default means, with respect to any series of debt securities, any of the following:

- default in the payment of any interest upon any debt security of that series when it becomes due and payable, and continuance of that default for a period of 30 days (unless the entire amount of the payment is deposited by us with the trustee or with a paying agent prior to the expiration of the 30-day period);
- default in the payment of principal of or premium on any debt security of that series when due and payable;
- default in the performance or breach of any other covenant or warranty by us in the indenture (other than a covenant or warranty that has been included in the indenture solely for the benefit of a series of debt securities other than that series), which default continues uncured for a period of 90 days after we receive written notice from the trustee or we and the trustee receive written notice from the holders of not less than a majority in principal amount of the outstanding debt securities of that series as provided in the indenture;
- certain events of bankruptcy, insolvency or reorganization of our company; and
- any other event of default provided with respect to debt securities of that series that is described in the applicable prospectus supplement.

No event of default with respect to a particular series of debt securities (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an event of default with respect to any other series of debt securities. The occurrence of an event of default may constitute an event of default under our bank credit agreements in existence from time to time. In addition, the occurrence of certain events of default or an acceleration under the indenture may constitute an event of default under certain of our other indebtedness outstanding from time to time.

If an event of default with respect to debt securities of any series at the time outstanding occurs and is continuing, then the trustee or the holders of not less than a majority in principal amount of the outstanding debt securities of that series may, by a notice in writing to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms of that series) of, and accrued and unpaid interest, if any, on all debt securities of that series. In the case of an event of default resulting from certain events of bankruptcy, insolvency or reorganization, the principal (or such specified amount) of and accrued and unpaid interest, if any, on all outstanding debt securities will become and be immediately due and payable without any declaration or other act on the part of the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before a judgment or decree for payment of the money due has been obtained by the trustee, the holders of a majority in principal amount of the outstanding debt securities of that series may rescind and annul the acceleration if all events of default, other than the non-payment of accelerated principal and interest, if any, with respect to debt securities of that series, have been cured or waived as provided in the indenture. We refer you to the prospectus supplement relating to any series of debt securities that are discount securities for the particular provisions relating to acceleration of a portion of the principal amount of such discount securities upon the occurrence of an event of default.

The indenture provides that the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any holder of outstanding debt securities, unless the trustee receives indemnity satisfactory to it against any loss, liability or expense. Subject to certain rights of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series.

No holder of any debt security of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the indenture or for the appointment of a receiver or trustee, or for any remedy under the indenture, unless:

- that holder has previously given to the trustee written notice of a continuing event of default with respect to debt securities of that series; and
- the holders of at least a majority in principal amount of the outstanding debt securities of that series have made written request, and offered reasonable indemnity, to the trustee to institute the proceeding as trustee, and the trustee has not received from the holders of a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with that request and has failed to institute the proceeding within 60 days.

Notwithstanding the foregoing, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of, and any premium and interest on, that debt security on or after the due dates expressed in that debt security and to institute suit for the enforcement of payment.

If any securities are outstanding under the indenture, the indenture requires us, within 120 days after the end of our fiscal year, to furnish to the trustee a statement as to compliance with the indenture. The indenture provides that the trustee may withhold notice to the holders of debt securities of any series of any default or event of default (except in payment on any debt securities of that series) with respect to debt securities of that series if it in good faith determines that withholding notice is in the interest of the holders of those debt securities.

Modification and Waiver

We may modify and amend the indenture with the consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or amendments. We may not make any modification or amendment without the consent of the holders of each affected debt security then outstanding if that amendment will:

- reduce the amount of debt securities whose holders must consent to an amendment or waiver;
- reduce the rate of or extend the time for payment of interest (including default interest) on any debt security;
- reduce the principal of, or premium on, or change the fixed maturity of, any debt security or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation with respect to any series of debt securities;
- reduce the principal amount of discount securities payable upon acceleration of maturity;
- waive a default in the payment of the principal of, or premium or interest on, any debt security (except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in aggregate principal amount of the then outstanding debt securities of that series and a waiver of the payment default that resulted from such acceleration);
- make the principal of, or premium or interest on, any debt security payable in currency other than that stated in the debt security;
- make any change to certain provisions of the indenture relating to, among other things, the right of holders of debt securities to receive payment of the principal of, and premium and interest on, those debt securities and to institute suit for the enforcement of any such payment and to waivers or amendments; or
- waive a redemption payment with respect to any debt security.

Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all debt securities of that series waive our compliance with provisions of the indenture. The holders of a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all the debt securities of such series waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, or any premium or interest on, any debt security of that series or in respect of a covenant or provision, which cannot be modified or amended without the consent of the holder of each outstanding debt security of the series affected; provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration of the debt securities of such series and its consequences, including any related payment default that resulted from the acceleration.

Discharging Our Obligations

We may choose to either discharge our obligations on the debt securities of any series in a legal defeasance, or to release ourselves from our covenant restrictions on the debt securities of any series in a covenant defeasance. We may do so at any time after we deposit with the trustee sufficient cash or government securities to pay the principal, interest, any premium and any other sums due to the stated maturity date or a redemption date of the debt securities of the series. If we choose the legal defeasance option, the holders of the debt securities of the series will not be entitled to the benefits of the indenture except for registration of transfer and exchange of debt securities, replacement of lost, stolen, destroyed or mutilated debt securities, conversion or exchange of debt securities, sinking fund payments and receipt of principal and interest on the original stated due dates or specified redemption dates.

We may discharge our obligations under the indenture or release ourselves from covenant restrictions only if, in addition to making the deposit with the trustee, we meet some specific requirements. Among other things:

- we must deliver an opinion of our legal counsel that the discharge will not result in holders having to recognize taxable income or loss or subject them to different tax treatment. In the case of legal defeasance, this opinion must be based on either an IRS letter ruling or change in federal tax law;
- we may not have a default on the debt securities discharged on the date of deposit;
- the discharge may not violate any of our agreements; and
- the discharge may not result in our becoming an investment company in violation of the Investment Company Act of 1940.

Governing Law

The indenture and the debt securities will be governed by, and construed in accordance with, the internal laws of the State of New York, without regard to conflict of law principles that would result in the application of any law other than the laws of the State of New York.

DESCRIPTION OF PURCHASE CONTRACTS

We may issue purchase contracts for the purchase or sale of debt or equity securities (including capital notes) issued by us or securities of third parties, a basket of such securities, an index or indices of such securities or any combination of the above as specified in the applicable prospectus supplement.

Each purchase contract will entitle the holder thereof to purchase or sell, and obligate us to sell or purchase, on specified dates, such securities, currencies or commodities at a specified purchase price, which may be based on a formula, all as set forth in the applicable prospectus supplement. We may, however, satisfy our obligations, if any, with respect to any purchase contract by delivering the cash value of such purchase contract or the cash value of the property otherwise deliverable or, in the case of purchase contracts on underlying currencies, by delivering the underlying currencies, as set forth in the applicable prospectus supplement. The applicable prospectus supplement will also specify the methods by which the holders may purchase or sell such securities, currencies or commodities and any acceleration, cancellation or termination provisions or other provisions relating to the settlement of a purchase contract.

The purchase contracts may require us to make periodic payments to the holders thereof or vice versa, which payments may be deferred to the extent set forth in the applicable prospectus supplement, and those payments may be unsecured or prefunded on some basis. The purchase contracts may require the holders thereof to secure their obligations in a specified manner to be described in the applicable prospectus supplement. Alternatively, purchase contracts may require holders to satisfy their obligations thereunder when the purchase contracts are issued. Our obligation to settle such pre-paid purchase contracts on the relevant settlement date may constitute indebtedness. Accordingly, pre-paid purchase contracts will be issued under the indenture.

DESCRIPTION OF UNITS

We may, from time to time, issue units comprised of one or more of the other securities that may be offered under this prospectus, in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately at any time, or at any time before a specified date.

Any applicable prospectus supplement will describe:

- the material terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any material provisions relating to the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- any material provisions of the governing unit agreement that differ from those described above

DESCRIPTION OF WARRANTS

We may issue warrants, options or rights to purchase our debt or equity securities (including capital notes) or securities of third parties or other rights, including rights to receive payment in cash or securities based on the value, rate or price of one or more specified securities or indices, or any combination of the foregoing. Warrants may be issued independently or together with any other securities and may be attached to, or separate from, such securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and a warrant agent. The terms of any warrants to be issued and a description of the material provisions of the applicable warrant agreement will be set forth in the applicable prospectus supplement.

The applicable prospectus supplement will describe the following terms of any warrants in respect of which the prospectus is being delivered:

- the title of such warrants;
- the aggregate number of such warrants;
- the price or prices at which such warrants will be issued;
- the currency or currencies, in which the price of such warrants will be payable;
- the securities or other rights, including rights to receive payment in cash or securities based on the value, rate or price of one or more specified commodities, currencies, securities or indices, or any combination of the foregoing, purchasable upon exercise of such warrants;
- the date on which the right to exercise such warrants shall commence and the date on which such right shall expire;

- if applicable, the minimum or maximum amount of such warrants which may be exercised at any one time;
- if applicable, the designation and terms of the securities with which such warrants are issued and the number of such warrants issued with each such security;
- if applicable, the date on and after which such warrants and the related securities will be separately transferable;
- information with respect to book-entry procedures, if any;
- any material Israeli and U.S. federal income tax consequences;
- the anti-dilution provisions of the warrants; and
- any other terms of such warrants, including terms, procedures and limitations relating to the exchange and exercise of such warrants.

PLAN OF DISTRIBUTION

We may sell securities under this prospectus in offerings:

- through one or more underwriters or dealers;
- through other agents; or
- directly to investors.

We may price the securities we sell under this prospectus:

- at a fixed public offering price or prices, which we may change from time to time;
- at market prices prevailing at the times of sale;
- at prices calculated by a formula based on prevailing market prices;
- at negotiated prices; or
- in a combination of any of the above pricing methods.

If we use underwriters for an offering, they will acquire securities for their own account and may resell them from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions and except as otherwise set forth in the applicable prospectus supplement, the underwriters will be obligated to purchase all the securities of the series offered by the prospectus supplement. The public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may change from time to time. Only underwriters named in a prospectus supplement are underwriters of the securities offered by that prospectus supplement.

We may grant to the underwriters options to purchase additional securities to cover over-allotments, if any, at the public offering price with additional underwriting discounts or commissions. If we grant any over-allotment option, the terms of any over-allotment option will be set forth in the prospectus supplement relating to those securities.

We may also sell securities directly or through agents. We will name any agent involved in an offering and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agents will act on a best-efforts basis.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions of these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against certain civil liabilities, including liabilities under the Securities Act of 1933, or contribution with respect to payments that the agents or underwriters may make with respect to such liabilities. Underwriters or agents may engage in transactions with us, or perform services for us, in the ordinary course of business. We may also use underwriters or agents with whom we have a material relationship. We will describe the nature of any such relationship in the prospectus supplement.

An underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Securities Exchange Act of 1934. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriter to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. These activities may cause the price of our securities to be higher than it would otherwise be on the open market. The underwriter may discontinue any of these activities at any time.

All securities we offer, other than ordinary shares, will be new issues of securities, with no established trading market. Underwriters may make a market in these securities, but will not be obligated to do so and may discontinue market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

OFFERING EXPENSES

The following is a statement of expenses in connection with the distribution of the securities registered. All amounts shown are estimates except the SEC registration fee. The estimates do not include expenses related to offerings of particular securities. Each prospectus supplement describing an offering of securities will reflect the estimated expenses related to the offering of securities under that prospectus supplement.

SEC registration fees	\$ 3,565.00
Legal fees and expenses	\$ 30,000.00
Accountants fees and expenses	\$ 5,000.00
Printing expenses	\$ 1,000.00
Miscellaneous	\$ 10,000.00
TOTAL	\$ 49,565.00

LEGAL MATTERS

The validity of the securities offered in this prospectus will be passed upon for us by Yigal Arnon & Co., our Israeli counsel, and by Eilenberg & Krause LLP, our U.S. counsel. Any underwriters will be advised with respect to other issues relating to any offering by their own legal counsel.

EXPERTS

The consolidated financial statements, incorporated in this prospectus by reference from our Annual Report on Form 20-F and the effectiveness of our internal control over financial reporting have been audited by Brightman Almagor Zohar & Co., a member firm of Deloitte Touche Tohmatsu, an independent registered public accounting firm, as stated in their reports, which are incorporated herein by reference. Such financial statements have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

**ENFORCEABILITY OF CIVIL LIABILITIES AND
AGENT FOR SERVICE OF PROCESS IN THE UNITED STATES**

We are incorporated in Israel, most of our executive officers and directors and the Israeli experts named herein are nonresidents of the United States, and a substantial portion of our assets and of such persons' are located outside the United States. For further information regarding enforceability of civil liabilities against us and other persons, see the discussions in Item 3 of our Annual Report on Form 20-F for the year ended December 31, 2009 under the caption "Risk Factors — Risks Related to Our Operations in Israel — It may be difficult to enforce a U.S. judgment against us, our officers and directors and some of the experts named in this prospectus or to assert U.S. securities law claims in Israel."

This prospectus is part of a registration statement we filed with the SEC. You should rely only on the information or representations contained in this prospectus and any accompanying prospectus supplement. We have not authorized anyone to provide information other than that provided in this prospectus and any accompanying prospectus supplement. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus or any accompanying prospectus supplement is accurate as of any date other than the date on the front of the document.

\$50,000,000

Ordinary Shares
Capital Notes
Debt Securities
Purchase Contracts
Warrants
Units

PROSPECTUS

_____, 2010

PART II. INFORMATION NOT REQUIRED IN PROSPECTUS

Item 8. Indemnification of Directors And Officers.

The Israeli Companies Law-1999, or the Companies Law, provides that a company may include in its articles of association provisions allowing it to:

1. partially or fully, exempt in advance, an office holder of the company from his/her responsibility for damages caused by the breach of his/her duty of care to the company, except for damages caused to the Company due to any breach of such office holder's duty of care towards the company in a "distribution" (as defined in the Companies Law).
2. enter into a contract to insure the liability of an office holder of the company by reason of acts or omissions committed in his/her capacity as an office holder of the company with respect to the following:
 - (a) the breach of his/her duty of care to the company or any other person;
 - (b) the breach of his/her fiduciary duty to the company to the extent he/she acted in good faith and had a reasonable basis to believe that the act or omission would not prejudice the interests of the company; and
 - (c) monetary liabilities or obligations which may be imposed upon him/her in favor of other persons.
3. indemnify an office holder of the company for:
 - (a) monetary liabilities or obligations imposed upon, or actually incurred by, such officer holder in favor of other persons pursuant to a court judgment, including a compromise judgment or an arbitrator's decision approved by a court, by reason of acts or omissions of such office holder in his or her capacity as an office holder of the company;
 - (b) reasonable litigation expenses, including attorney's fees, actually incurred by such office holder or imposed upon him or her by a court, in an action, suit or proceeding brought against him or her by or on behalf of us or by other persons, or in connection with a criminal action from which he or she was acquitted, or in connection with a criminal action which does not require criminal intent in which he/she was convicted, in each case by reason of acts or omissions of such office holder in his or her capacity as an office holder; and
 - (c) reasonable litigation expenses, including attorneys' fees, actually incurred by such office holder due to an investigation or a proceeding instituted against such office holder by an authority competent to administrate such an investigation or proceeding, and that was finalized without the filing of an indictment against such office holder and without any financial obligation imposed on such office holder in lieu of criminal proceedings, or that was finalized without the filing of an indictment against such office holder but with financial obligation imposed on such office holder in lieu of criminal proceedings of a crime which does not require proof of criminal intent, in each case by reason of acts of such office holder in his or her capacity as an office holder of the company.

The Companies Law provides that a company's articles of association may provide for indemnification of an office holder post-factum and may also provide that a company may undertake to indemnify an office holder in advance, as described in:

- i. sub-section 3(a) above, provided such undertaking is limited to and actually sets forth the occurrences, which, in the opinion of the company's board of directors based on the current activity of the company, are, at the time such undertaking is provided, foreseeable, and to an amount and degree that the board of directors has determined is reasonable for such indemnification under the circumstances; and
- ii. sub-sections 3(b) and 3(c) above.

The Companies Law provides that a company may not indemnify or exempt the liabilities of an office holder or enter into an insurance contract which would provide coverage for the liability of an office holder with respect to the following:

- o a breach of his/her fiduciary duty, except to the extent described above;
- o a breach of his/her duty of care, if such breach was done intentionally, recklessly or with disregard of the circumstances of the breach or its consequences, except if such breach is done only with negligence;
- o an act or omission done with the intent to unlawfully realize personal gain; or
- o a fine or monetary settlement imposed upon him/her.

Under the Companies Law, the term "office holder" may include a director, managing director, general manager, chief executive officer, executive vice president, vice president, other managers directly subordinate to the managing director and any other person fulfilling or assuming any such position or responsibility without regard to such person's title.

The grant of an exemption, an undertaking to indemnify or indemnification of, and procurement of insurance coverage for, an office holder of a company requires, pursuant to the Companies Law, the approval of our audit committee and board of directors, and, in certain circumstances, including if the office holder is a director, the approval of our shareholders.

We have entered into an insurance contract for directors and officers and have procured indemnification insurance for our office holders to the extent permitted by our articles of association. We have never had the occasion to indemnify any of our office holders.

Item 9. Exhibits.

The following exhibits are filed herewith or incorporated by reference herein:

No.	Description
1.1	Underwriting agreement.*
3.1	Articles of Association of the Registrant, approved by shareholders on November 14, 2000, as amended (incorporated by reference to Exhibit 3.1 of the Registrant's Registration Statement on Form F-1, File No. 333-126909, "Form F-1 No. 333-126909").
3.2	Amendment to Articles of Association of the Registrant (incorporated by reference to exhibit 4.2 to the Registration Statement on Form S-8 No. 333-117565 ("Form S-8 No. 333-117565").
3.3	Amendment to the Articles of Association of the Registrant (approved by shareholders on September 28, 2006) (incorporated by reference to Exhibit 4.2 of the Registrant's Registration Statement on Form S-8, File No. 333-138837 (the "2006 Form S-8").
3.4	Amendment to Articles of Association of Registrant (approved by shareholders on September 24, 2008) (incorporated by reference to Exhibit 3.4 of the Registrant's Registration Statement on Form S-8, File No. 333-153710 (the "2008 Form S-8").
4.1	Form of securities purchase agreement.*
4.2	Form of capital note certificate.*
4.3	Form of indenture relating to debt securities (incorporated by reference to Exhibit 4.3 of the Registrant's Registration Statement on Form F-3, File No. 333-148747).
4.4	Form of debt securities.*
4.5	Form of purchase contract agreement (including form of purchase contract certificate).*
4.6	Form of unit agreement (including form of unit certificate).*
4.7	Form of warrant agreement (including form of warrant certificate).*
5.1	Opinion of Yigal Arnon & Co., Israeli counsel to the registrant, re legality.**
5.2	Opinion of Eilenberg & Krause LLP, U.S. counsel to the registrant, re legality.**
12.1	Statement of Computation of Ratio of Earnings to Fixed Charges.**
23.1	Consent of Yigal Arnon & Co., included in Exhibit 5.1.**
23.2	Consent of Eilenberg & Krause LLP, included in Exhibit 5.2.**
23.3	Consent of Brightman Almagor & Co., independent registered public accounting firm.**

24.1 Power of attorney, included on Signatures page.**

25.1 Statement of Eligibility of Trustee for Indenture under Trust Indenture Act of 1939.***

* To be filed by amendment, or as an exhibit to a report on Form 6-K and incorporated herein by reference.

** Filed herewith.

*** To be incorporated by reference from a subsequent filing in accordance with Section 305(b)(2) of the Trust Indenture Act of 1939.

II-3

Item 10. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement;

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or any decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) of this section do not apply if the registration statement is on Form S-3 or Form F-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the Registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, as amended, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) To file a post-effective amendment to the registration statement to include any financial statements required by Item 8.A. of Form 20-F at the start of any delayed offering or throughout a continuous offering. Financial statements and information otherwise required by Section 10(a)(3) of the Securities Act of 1933, as amended, need not be furnished, provided, that the Registrant includes in the prospectus, by means of a post-effective amendment, financial statements required pursuant to this paragraph (a)(4) and other information necessary to ensure that all other information in the prospectus is at least as current as the date of those financial statements. Notwithstanding the foregoing, with respect to registration statements on Form F-3, a post-effective amendment need not be filed to include financial statements and information required by Section 10(a)(3) of the Securities Act of 1933, as amended, or Rule 3-19 of Regulation S-K if such financial statements and information are contained in periodic reports filed with or furnished to the SEC by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended, that are incorporated by reference in this Form F-3.

(5) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) If the Registrant is relying on Rule 430B:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

(ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(6) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities: The undersigned Registrant undertakes that in a primary offering of securities of the undersigned Registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned Registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned Registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned Registrant or used or referred to by the undersigned Registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned Registrant or its securities provided by or on behalf of the undersigned Registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned Registrant to the purchaser.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

(d) The undersigned Registrant hereby undertakes that:

(i) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b) (1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(ii) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(e) The undersigned Registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the SEC under Section 305(b)(2) of the Trust Indenture Act.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form F-3 and has duly caused this Registration Statement on Form F-3 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Migdal Haemek, Israel, on September 20, 2010.

TOWER SEMICONDUCTOR LTD.

By: /s/ Russell C. Ellwanger
 Russell C. Ellwanger
 Director and Chief Executive Officer

KNOW ALL MEN BY THESE PRESENTS, each director and officer whose signature appears below constitutes and appoints, Russell C. Ellwanger, Oren Shirazi or any of them, his/her true and lawful attorney-in-fact and agent, with full power of substitution and re-substitution, to sign in any and all capacities any and all amendments or post-effective amendments to this registration statement on Form F-3, provided such amendment is limited to immaterial matters or any other matter that has been approved by the board of directors, and any registration statement filed pursuant to Rule 462 under the Securities Act of 1933, as amended, and to file the same with all exhibits thereto and other documents in connection therewith with the Securities Exchange Commission, granting such attorneys-in-fact and agents, and each of them, full power and authority to do all such other acts and execute all such other documents as they, or any of them, may deem necessary or desirable in connection with the foregoing, as fully as the undersigned might or could do in person, hereby ratifying and confirming all that such attorneys-in-fact and agents, or any of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

Signature	Title	Date
/s/ Amir Elstein Amir Elstein	Chairman of the Board	September 20, 2010
/s/ Russell C. Ellwanger Russell C. Ellwanger	Director and Chief Executive Officer (Principal Executive Officer)	September 20, 2010
/s/ Oren Shirazi Oren Shirazi	Vice President of Finance and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	September 20, 2010

/s/ Nir Gilad Nir Gilad	Director	September 20, 2010
/s/ Ron Moskovitz Ron Moskovitz	Director	September 20, 2010
/s/ Rami Guzman Rami Guzman	Director	September 20, 2010
/s/ Alex Kornhauser Alex Kornhauser	Director	September 20, 2010
/s/ Ilan Flato Ilan Flato	Director	September 20, 2010
/s/ Kalman Kaufman Kalman Kaufman	Director	September 20, 2010
/s/ Dana Gross Dana Gross	Director	September 20, 2010

AUTHORIZED REPRESENTATIVE IN THE UNITED STATES
Tower Semiconductor USA, Inc.

By: /s/ Russell C. Ellwanger
Russell C. Ellwanger
Chief Executive Officer

September 20, 2010

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