

TOWER SEMICONDUCTOR LTD
Form F-3
May 31, 2012

As filed with the Securities and Exchange Commission on May 31, 2012

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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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:

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

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

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

If 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.

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.

Calculation of Registration Fee

| Title of Each Class of Securities to be Registered | Amount to be Registered | Proposed Maximum Aggregate Price Per Unit | Proposed Maximum Aggregate Offering Price | Amount of Registration Fee |
|--|-------------------------|---|---|----------------------------|
| Ordinary Shares, par value NIS 1.00 per share | 85,000,000 (1) | \$0.76 (2) | \$64,600,000.00(2) | \$7,404 |

(1) Represents the Registrant's ordinary shares issuable upon conversion of the Registrant's Equity Equivalent Convertible Capital Notes issued to the selling securityholders. Pursuant to Rule 416 of the Securities Act of 1933, this registration statement also includes an indeterminate number of shares that may be issued to prevent dilution from stock splits, stock dividends or similar transactions that could affect the shares to be offered by selling shareholder.

(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) of the Securities Act of 1933 on the basis of the average of the high and low prices, as reported on the NASDAQ Stock Market on May 29, 2012.

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 MAY 31, 2012

PROSPECTUS

85,000,000 Ordinary Shares

This prospectus relates to the resale, from time to time, by the selling securityholders named in this prospectus of up to 85,000,000 ordinary shares issuable upon conversion of equity equivalent convertible capital notes.

The selling securityholders may sell all or any portion of these ordinary shares in one or more transactions on the NASDAQ Stock Market, the Tel Aviv Stock Exchange, in the over-the-counter market, in privately negotiated transactions or otherwise. In addition, the selling securityholders may sell any portion of these ordinary shares (i) directly to purchasers or through agents, brokers, dealers or underwriters; (ii) at market prices prevailing at the time of sale, at prices related to such prevailing market prices, or at negotiated prices; or (iii) or any other means described in the section entitled "Plan of Distribution." To the extent required, the names of any agents, brokers, dealers or underwriters and applicable commissions or discounts and any other required information with respect to any particular sale will be set forth in an accompanying prospectus supplement.

We will not receive any of the proceeds from sales of the ordinary shares made by the selling securityholders pursuant to this prospectus.

Our ordinary shares are listed on the NASDAQ Stock Market under the symbol "TSEM" and on the Tel Aviv Stock Exchange in Israel under the symbol "TSEM." On May 30, 2012, the last reported sale price of our ordinary shares on the NASDAQ Stock Market was \$0.75 per share and on the Tel Aviv Stock Exchange was NIS 2.91 per share.

The securities offered hereby involve a high degree of risk. See "Risk Factors" beginning on page 3.

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 _____, 2012

You should rely only on the information contained or incorporated by reference in this prospectus or any supplement. Neither we nor the selling securityholders have authorized anyone else to provide you with different information. The ordinary shares offered by this prospectus are being offered only in jurisdictions where the offer is permitted. You should not assume that the information in this prospectus or any supplement is accurate as of any date other than the date on the front of each document. Our business, financial condition, results of operations and prospects may have changed since that date.

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ABOUT THIS PROSPECTUS

This prospectus provides you with a general description of the offered ordinary shares. Each time any selling securityholder sells any of these offered ordinary shares, it will provide you with this prospectus and a prospectus supplement, if applicable, that will contain specific information about the terms of that sale. The prospectus supplement may also add, update or change any information contained in this prospectus. You should read both this prospectus and any prospectus supplement, together with additional information described under the heading "Where You Can Find More Information; Incorporation of Information by Reference."

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission (the "SEC") under the U.S. Securities Act of 1933, as amended (the "Securities Act"). This prospectus and any accompanying prospectus supplement do not contain all of the information included in the registration statement. For further information, we refer you to the registration statement, including its exhibits. Statements contained in this prospectus and any accompanying prospectus supplement about the provisions or contents of any agreement or other document are not necessarily complete. If the SEC's rules and regulations require that such agreement or document be filed as an exhibit to the registration statement, please see such agreement or document for a complete description of these matters. You should not assume that the information in this prospectus or any prospectus supplement is accurate as of any date other than the date on the front of each document.

All references in this prospectus to "dollars" or "\$" are to United States dollars, and all references to "NIS" are to New Israeli Shekels.

ABOUT TOWER SEMICONDUCTOR LTD.

As used in this registration statement, "we," "us," "our," "Tower" and "the Company" and words of similar import, refer to Tower Semiconductor Ltd., together with its direct wholly-owned subsidiaries.

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 complementary design and 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.

FAB 1 Facility

Tower Semiconductor Ltd. was founded in 1993, with the acquisition of 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 wafers per month. Since then, we have significantly modernized our Fab 1 facility and equipment and enhanced our process technologies to include CMOS image sensors, embedded flash and mixed-signal technologies. Depending on the process technology and product mix, we estimate Fab 1 is able to achieve capacity levels of approximately 20,000 wafers per month.

FAB 2 Facility

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 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 45,000 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.

FAB 3 Facility

In September 2008, we acquired Jazz Technologies in a stock-for-stock transaction. Jazz Semiconductor, a wholly owned subsidiary of Jazz Technologies, is an independent semiconductor foundry, which we refer to as Fab 3, located in Newport Beach, California, focused on specialty process technologies for the manufacture of analog and mixed-signal semiconductor devices (Jazz Technologies and Jazz Semiconductor are collectively referred to herein as "Jazz"). 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.

FAB 4 Facility

In June 2011, we acquired a fabrication facility in Nishiwaki City, Hyogo, Japan from Micron Technology Inc. ("Micron"). The assets and related business that we acquired from Micron are held and conducted through a wholly owned Japanese subsidiary, TowerJazz Japan Ltd. and we refer to them as Fab 4. The facility can support geometries down to 95nm and can also be used to manufacture other products using TowerJazz process technologies.

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.

Further details about us and our operations are provided in our Annual Report on Form 20-F, and the other documents incorporated by reference into this prospectus. See "Where You Can Find More Information; Incorporation of Information by Reference". You are encouraged to thoroughly review the documents incorporated by reference into this prospectus as they contain important information concerning our business and our prospects.

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.

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 Annual Report on Form 20-F for the year ended December 31, 2011, filed with the SEC, which is incorporated by reference in this prospectus, and in subsequent reports that we file with the SEC. You should carefully consider these risks together with the other information contained or incorporated by reference in this prospectus before deciding to invest in our securities. If any of these 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.

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

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

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

CAPITALIZATION

The following table sets forth our long-term debt, debentures and capitalization as of March 31, 2012. This table does not give pro forma effect to the issuance of the 85,000,000 ordinary shares, registered hereunder, upon conversion of the equity equivalent convertible capital notes. This table was prepared in accordance with US GAAP and the financial data is derived from our interim condensed consolidated financial statements as of March 31, 2012.

| | As of March 31, 2012 (US dollars in thousands) |
|--|---|
| Long-term bank loans | \$107,740 |
| Debentures(including current maturities) | 311,898 |
| Long-term customers' advances | 7,813 |
| Other long-term liabilities | 142,455 |
| Shareholders' equity: | |
| Ordinary Shares, NIS 1.00 par value per share; 1,400,000,000 authorized shares, 323,081,045 issued shares and 321,781,045 outstanding shares | 83,954 |
| Additional paid-in capital | 863,412 |
| Capital notes | 311,472 |
| Accumulated other comprehensive loss | (1,073) |
| Foreign currency translation adjustments | (1,968) |
| Accumulated deficit | (1,089,658) |
| Treasury stock, 1,300,000 shares | (9,072) |
| Total shareholders' equity | 157,067 |
| Total capitalization | \$897,268 |

The information set forth in the foregoing table excludes the following securities as of March 31, 2012:

- (i) 27.9 million ordinary shares issuable upon exercise of options granted to employees and directors at a weighted average exercise price of \$1.15;
- (ii) 27.3 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) 1.3 million ordinary shares issuable upon exercise of warrants issued to our banks in connection with our credit facility with an exercise price of \$0.79 per share exercisable until December 2015;

- (vii) 21.6 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 \$1.30;
- (viii) 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 shares issuable upon conversion of such notes issued to Israel Corp.;
- (ix) 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;
- (x) ordinary shares issuable upon conversion of approximately \$201.6 million of our 2010 Series F convertible debentures which first become convertible in September 2012. The conversion price for Series F convertible debentures shall be equal to 120% of the average trading price of our ordinary shares on the Tel-Aviv Stock Exchange during the 15 trading days before September 18, 2012, provided that in no event will the exercise price be more than NIS 6.5 or less than NIS 1.0; and
- (xi) 26.6 million ordinary shares issuable upon exercise of Series 7 Warrant. Each Series 7 Warrant will entitle the holder thereof to purchase one ordinary share during the period which starts on March 2, 2014 and ends on March 1, 2016. The Series 7 Warrants will be exercisable into our ordinary shares during the period set forth above at an exercise price equal to 120% of the average trading price of our ordinary shares on the Tel-Aviv Stock Exchange during the 15 trading days in Israel before February 20, 2014, provided that in no event will the price be more than NIS 4.25, or less than NIS 2.0.

USE OF PROCEEDS

All of the proceeds from the sale of any ordinary shares offered under this prospectus are for the account of the selling securityholders. Accordingly, we will not receive any proceeds from the sales of these securities.

We have agreed to bear all expenses relating to the registration of the securities registered pursuant to this prospectus.

MARKET FOR OUR ORDINARY SHARES

Our ordinary shares are listed and traded on the NASDAQ Stock Market and on the Tel Aviv Stock Exchange under the symbol “TSEM”.

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

| Period | NASDAQ Stock Market | | Tel Aviv Stock Exchange | |
|---------------------|---------------------|----------|-------------------------|-----------|
| | High (\$) | Low (\$) | High (NIS) | Low (NIS) |
| April 2012 | 0.98 | 0.81 | 3.72 | 3.09 |
| March 2012 | 0.94 | 0.68 | 3.50 | 2.54 |
| February 2012 | 0.90 | 0.71 | 3.48 | 2.62 |
| January 2012 | 0.76 | 0.60 | 2.75 | 2.30 |
| December 2011 | 0.69 | 0.60 | 2.57 | 2.27 |
| November 2011 | 0.81 | 0.63 | 2.96 | 2.27 |
| First quarter 2012 | 0.94 | 0.60 | 3.50 | 2.30 |
| Fourth quarter 2011 | 0.87 | 0.60 | 3.18 | 2.27 |
| Third quarter 2011 | 1.20 | 0.62 | 4.10 | 2.31 |
| Second quarter 2011 | 1.45 | 1.02 | 5.07 | 3.49 |
| First quarter 2011 | 1.54 | 1.15 | 5.49 | 4.10 |
| Fourth quarter 2010 | 1.69 | 1.34 | 6.00 | 4.85 |
| Third quarter 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 |
| 2011 | 1.54 | 0.60 | 5.49 | 2.27 |
| 2010 | 1.87 | 0.99 | 7.02 | 3.71 |
| 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 |

On May 30, 2012, the last reported sale price of the ordinary shares was \$0.75 on the NASDAQ Stock Market and NIS 2.91 on the Tel Aviv Stock Exchange.

§ the commissions paid or discounts or concessions allowed to such broker-dealer(s), where applicable; and

§ other facts material to the transaction.

The selling securityholders may enter into hedging transactions with broker-dealers or other financial institutions. In connection with such transactions, broker-dealers or other financial institutions may engage in short sales of the securities offered hereby or of securities convertible into or exchangeable for such securities in the course of hedging positions they assume with the selling securityholders. The selling securityholders may also enter into options or other transactions with broker-dealers or other financial institutions which require the delivery to such broker-dealers or other financial institutions of the securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as amended or supplemented to reflect such transaction).

To the extent required, we will use our best efforts to file one or more supplements to this prospectus to describe any material information with respect to the plan of distribution not previously disclosed in this prospectus or any material change to such information.

OFFERING EXPENSES

We have incurred, or expect to incur, the following estimated expenses in connection with this prospectus:

| | |
|---|----------|
| Securities and Exchange Commission Registration Fee | \$7,404 |
| Legal fees and expenses | 15,000 |
| Miscellaneous | 5,000 |
| Total | \$27,404 |

SELLING SECURITYHOLDERS

Beneficial ownership and other information.

Bank Hapoalim B.M and Bank Leumi Le-Israel, B.M (together, the “Israeli Banks”), the selling securityholders, are two of our bank lenders. The ordinary shares offered by the selling securityholders are issuable pursuant to equity equivalent capital notes originally issued to the Israeli Banks in connection with restructurings of our then existing debt owed to the Israeli Banks. The ordinary shares offered by Bank Hapoalim are issuable pursuant to equity equivalent capital notes originally issued in 2008 and the ordinary shares offered by Bank Leumi are issuable pursuant to equity equivalent capital notes originally issued in 2006 and 2008. The equity equivalent capital notes are convertible into ordinary shares.

The term “selling securityholders” include (i) the entities identified in the table below (as such table may be amended from time to time by means of an amendment to the registration statement of which this prospectus forms a part or by a supplement to this prospectus) and (ii) any donees, pledgees, transferees or other successors-in-interest that acquires any of the ordinary shares covered by this prospectus after the date of this prospectus from the named selling securityholders as a gift, pledge, partnership distribution or other non-sale related transfer.

Except as described herein or in the documents incorporated by reference herein, we have no material relationships with the selling securityholders and have not had any material relationships with the selling securityholders in the past three years.

Nothing in this Registration Statement shall be construed as an admission that any selling securityholders are the beneficial owner of any of our securities, other than the securities held directly by such party, nor that any selling stockholder or other persons or entities constitute a "group", for purposes of Section 13(d) of the Exchange Act and the rules promulgated thereunder.

Except as set forth in the footnotes to the table, other than the ordinary shares covered by this prospectus and offered hereby, the selling securityholders do not beneficially own any of our ordinary shares or other securities and will not beneficially own any such securities after completion of the offering. Our registration of the securities covered by this prospectus does not necessarily mean that the selling securityholders will sell any or all of the securities. Information included in the table is based upon information provided by the selling securityholders.

Each selling securityholder is an affiliate of a broker-dealer. The selling securityholders have each represented to us that it (i) acquired the capital notes and the ordinary shares issuable upon conversion of the capital notes and which are offered hereby in the ordinary course of their business as part of a restructuring of loans made to us and (ii) did not have an agreement or understanding, directly or indirectly, with any person to distribute the capital notes or the ordinary shares issuable upon conversion of the capital notes and which are offered hereby at the time it acquired the securities.

| Names and Addresses | Securities Beneficially Owned Prior to Offering / Percentage of Class (1) | Securities Being Offered | Securities Beneficially Owned Upon Completion of Offering / Percentage of Class |
|---|---|----------------------------|---|
| Bank Hapoalim (2) Zion Building 45 Rothschild Boulevard Tel-Aviv, Israel | 103,240,919 shares (3)/ 24.54% | 40,000,000 ordinary shares | 63,240,919 shares (4)/ 15.03% |
| Bank Leumi Le-Israel, B.M (2) 34 Yehuda Halevi Street Tel-Aviv, Israel | 98,789,032 shares (5)/ 23.51% | 45,000,000 ordinary shares | 53,789,032 shares(6)/12.80% |

1. Beneficial ownership is calculated as of March 31, 2012 in accordance with General Instruction F to Form 20-F and is based on 321,781,045 ordinary shares outstanding.

2. The selling securityholder is a public company registered with the Israel Securities Authority.

3. Includes an aggregate of 4,275,957 issued and outstanding ordinary shares, 2,555,585 ordinary shares which may be obtained upon exercise of warrants and 96,409,377 ordinary shares which may be obtained upon conversion of capital notes.

4. Includes an aggregate of 4,275,957 issued and outstanding ordinary shares, 2,555,585 ordinary shares which may be obtained upon exercise of warrants and 56,409,377 ordinary shares which may be obtained upon conversion of capital notes.

5. Includes an aggregate of 294,658 issued and outstanding ordinary shares, 2,084,997 ordinary shares which may be obtained upon exercise of warrants and 96,409,377 ordinary shares which may be obtained upon conversion of capital notes.

6. Includes an aggregate of 294,658 issued and outstanding ordinary shares, 2,084,997 ordinary shares which may be obtained upon exercise of warrants and 51,409,377 ordinary shares which may be obtained upon conversion of capital notes.

DESCRIPTION OF SHARE CAPITAL

Ordinary Shares

Our authorized share capital consists of 1,400,000,000 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 the ownership or voting rights of ordinary shares of Israeli entities by non-residents of Israel. Our ordinary shares do not have cumulative voting rights for the election of directors. The affirmative vote of the shareholders present in person or by proxy that represent more than 50% of the voting power present in person or by proxy have the power to elect all nominees up for election to our board of directors.

In the event of our liquidation, after satisfaction of liabilities to creditors, our assets will be distributed to the holders of our ordinary shares in proportion to the nominal value of their respective holdings. This liquidation right may be affected by the grant of a preferential dividend or distribution right to the holder of a class of shares with preferential rights that may be authorized in the future. Dividends may generally 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. Our major shareholders do not have different voting rights from each other or other shareholders.

Resolutions of shareholders (e.g. resolutions amending our articles of association, electing or removing directors, appointing an independent registered public accounting firm, authorizing changes in capitalization or the rights attached to our shares or approving a wind-up or merger) require the affirmative vote (at a meeting convened upon advance notice, in general, of no less than twenty one days) of shareholders present in person or by proxy and holding shares conferring, in the aggregate, at least a majority of the votes actually cast on such resolutions. Certain types of resolutions of shareholders such as certain extraordinary or interested party transactions are subject to special majority approval as set forth in the Israeli Companies Law.

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

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

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

Modification or abrogation of the rights of any existing class of shares requires either the written consent of all of the holders of the issued shares of such class or the adoption of a resolution by an ordinary majority of a general meeting of holders of such class. The quorum required for a class meeting is at least two shareholders present, in person or by proxy, within half an hour of the time fixed for the meetings commencement that together hold shares conferring in the aggregate at least 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.

As of March 31, 2012, 321,781,045 of our ordinary shares were outstanding. 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.

FOREIGN EXCHANGE CONTROLS AND OTHER LIMITATIONS

Israeli law limits foreign currency transactions and transactions between Israeli and non-Israeli residents. The Controller of Foreign Exchange at the Bank of Israel, through "general" and "special" permits, may regulate or waive these limitations. In May 1998, the Bank of Israel liberalized its foreign currency regulations by issuing a new "general permit" providing that foreign currency transactions are generally permitted, although some restrictions still apply. Under the new general permit, all foreign currency transactions must be reported to the Bank of Israel, and a foreign resident must report to his financial mediator about any contract for which Israeli currency is being deposited in, or withdrawn from, his account.

The State of Israel generally does not restrict the ownership or voting 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.

TAXATION

The below 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 below 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.

A. Israeli Capital Gains Tax

On January 1, 2003 an amendment to the Israeli tax regime became effective. This was followed by new amendments made to the Israeli Income Tax Ordinance which were enacted in 2011 which have an effect for income derived as of 2012.

An individual is subject to a 25% tax rate on real capital gains derived from the sale of shares, as long as the individual is not a "substantial shareholder" (generally a shareholder with 10% or more of the right to profits, right to nominate a director and voting rights) in the company issuing the shares.

A substantial shareholder will be subject to tax at a rate of 30% in respect of real capital gains derived from the sale of shares issued by a company in which he or she is a substantial shareholder. The determination of whether the individual is a substantial shareholder will be made on the date on which the securities are sold. In addition, the individual will be deemed to be a substantial shareholder if at any time during the 12 months preceding the date of sale, he or she was a substantial shareholder.

However, capital gains derived from selling shares which were purchased before 2012 will be linearly split and the portion of the gains attributed to the period the shares were held prior to 2012 will be taxed for an individual at the older rate of 20% (and 25% for a substantial shareholder).

Non-Israeli residents are exempt from Israeli capital gains tax on any gains derived from the sale of shares in an Israeli corporation publicly traded on TASE and/or on a foreign stock exchange, provided such gains do not derive from a permanent establishment of such shareholders in Israel and that such shareholders did not acquire their shares prior to the issuer's initial public offering. However, non-Israeli corporations will not be entitled to such exemption if an Israeli resident has a controlling interest of 25% or more in such non-Israeli corporation, or is the beneficiary of, or is entitled to, 25% or more of the revenues or profits of such non-Israeli corporation, whether directly or indirectly.

In some instances where our shareholders may be liable for Israeli tax on the sale of their ordinary shares, the payment of the consideration may be subject to the withholding of Israeli tax at the source.

Pursuant to the treaty between the governments of the United States and Israel with respect to taxes on income, or the U.S.-Israel tax treaty, the sale, exchange or disposition of our ordinary shares by a person who qualifies as a resident of the United States under the treaty and who is entitled to claim the benefits afforded by the treaty, will generally not be subject to Israeli capital gains tax. This exemption does not apply to a person who held, directly or indirectly, shares representing 10% or more of the voting power in our company during any part of the 12 month period preceding the sale, exchange or disposition, subject to certain conditions. A sale, exchange or disposition of our shares by a U.S. resident qualified under the treaty, who held, directly or indirectly, shares representing 10% or more of the voting power in our company at any time during the 12 month period preceding such sale, exchange or disposition, would be subject to Israeli tax, to the extent applicable; however, under the treaty, this U.S. resident would be permitted to claim a credit for these taxes against the U.S. income tax with respect to the sale, exchange or disposition, subject to the limitations in U.S. laws applicable to foreign tax credits.

B. Israeli Tax on Dividend Income

Non-residents of Israel are subject to income tax on income accrued or derived from sources in Israel. These sources of income include passive income such as dividends, royalties and interest, as well as non-passive income from services rendered in Israel. On distributions of dividends (other than bonus shares or stock dividends) to Israeli individuals and foreign resident individuals and corporations we would be required to withhold income tax at the rate of 25-30%. If the income out of which the dividend is being paid is attributable to an Approved Enterprise or Benefited Enterprise under the Investment Law, the rate is 15%. A different rate may be provided for in a treaty between Israel and the shareholder's country of residence. Under the U.S.-Israel tax treaty, if the income out of which the dividend is being paid is not attributable to an Approved Enterprise or Benefited Enterprise, then we are required to withhold income tax at a rate of 12.5% with respect to shareholders that are U.S. corporations and held at least 10% of our voting power in the 12 month period preceding the distribution of such dividends.

Residents of the United States will generally have taxes in Israel withheld at source. Such persons generally would be entitled to a credit or deduction for United States Federal income tax purposes for the amount of such taxes withheld, subject to limitations applicable to foreign tax credits.

LEGAL MATTERS

The validity of the securities offered in this prospectus will be passed upon for us by Yigal Arnon & Co., our Israeli counsel. In addition, certain other matters in connection with this offering with respect to United States law will be passed upon for us by Eilenberg & Krause LLP, our U.S. counsel.

EXPERTS

The consolidated financial statements of the Company, incorporated in this prospectus by reference from our Annual Report on Form 20-F 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 and financial statement schedules 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, 2011, incorporated by reference in this prospectus, 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."

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

We have filed a registration statement on Form F-3 with the SEC in connection with this offering. In addition, we file reports with, and furnish information to, the SEC. You may read and copy the registration statement and any other documents we have filed with the SEC, including any exhibits and schedules, at the SEC's public reference room at 100 F Street N.E., Washington, D.C. 20549. You may call the SEC 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 SEC's EDGAR system are available for retrieval on the SEC's website at www.sec.gov. These SEC 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 SEC 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 and information that we file later with the SEC that is incorporated by reference herein automatically updates and supersedes any information in this prospectus. We incorporate by reference the documents listed below and amendments to them. These documents and their amendments were previously filed with the SEC.

- Report on Form 6-K furnished to the SEC on May 17, 2012, with respect to the Company's interim financial statements included therein;
- Report on Form 6-K furnished to the SEC on May 9, 2012;
- Annual report on Form 20-F for the year ended December 31, 2012, filed on April 30, 2012, to the extent the information in that report has not been updated or superseded by this prospectus;
- any report on Form 6-K, or parts thereof, meeting the requirements of Form F-3 filed or furnished 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.
- the description of the Company's Ordinary Shares which is contained in its Registration Statement on Form 8-A declared effective on October 25, 1994.

This prospectus shall also be deemed to incorporate by reference all subsequent annual reports filed on Form 20-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 SEC 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 short-swing profit recovery provisions in Section 16 of the Exchange Act. In addition, we are not required to publish financial statements as promptly as U.S. companies.

85,000,000 Ordinary Shares

PROSPECTUS

_____, 2012

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 8. INDEMNIFICATION OF DIRECTORS AND OFFICERS

The Israeli Companies Law-1999, or the Companies Law, and the Israeli Securities Law – 1968, or the Securities 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;
 - (c) monetary liabilities or obligations which may be imposed upon him/her in favor of other persons; and
 - (d) reasonable litigation expenses, including attorneys fees, incurred by the officer as a result of an ongoing administrative enforcement proceeding instituted against him in accordance with the Securities Law; and
 - (e) a payment imposed on the office holder in favor of an injured party as set forth in the Securities Law.
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;
- (d) expenses, including reasonable litigation expenses and attorneys' fees, actually incurred by such office holder as a result of a proceeding instituted against such office holder in relation to infringements that may impose financial or administrative sanctions under the Securities Law; and
- (e) payments made by the office holder to an injured party ordered by the Administrative Enforcement Committee pursuant to an infringement under the Securities Law.

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 Securities Law provides that a company's articles of association may provide that a company may undertake to indemnify an office holder in advance, as described in sub-sections 3(d) and 3(e) above:

The Companies Law and Securities Law provide 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:

1. a breach of his/her fiduciary duty, except to the extent described in sub-section 2(b) above;
2. 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;
3. an act or omission done with the intent to unlawfully realize personal gain;
4. a fine or monetary settlement imposed upon him/her; or
5. An administrative proceeding instituted against the officer holder under the Securities Law, except as described in sub-sections 3(d) and 3(e) above.

Under the Companies Law, the term "office holder" may include a 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, or a director.

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.

II - 3

ITEM 9. EXHIBITS

| Exhibit Number | Description of Document |
|----------------|--|
| 5.1 | Opinion of Yigal Arnon & Co. |
| 23.1 | Consent of Yigal Arnon & Co. (contained in their opinion constituting Exhibit 5.1) |
| 23.2 | Consent of Brightman Almagor Zohar & Co. |
| 24.1 | Power of Attorney (set forth on signature page) |

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;

(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 Commission 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 Commission 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, 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 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 or Rule 3-19 of Regulation S-X if such financial statements and information are contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 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 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 Commission such indemnification is against public policy as expressed in the Act 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 Act and will be governed by the final adjudication of such issue.

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 May 31, 2012.

TOWER SEMICONDUCTOR LTD.

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

POWER OF ATTORNEY

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 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 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 | May 31, 2012 |
| /s/ Russell C. Ellwanger Russell C. Ellwanger | Chief Executive Officer (Principal Executive Officer) | May 31, 2012 |
| /s/ Oren Shirazi Oren Shirazi | Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer) | May 31, 2012 |
| /s/Ilan Flato Ilan Flato | Director | May 31, 2012 |
| _____ Nir Gilad | Director | May 31, 2012 |
| /s/Dana Gross Dana Gross | Director | May 31, 2012 |

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| /s/Rami Guzman Rami Guzman | Director | May 31, 2012 |
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| /s/ Kalman Kaufman Kalman Kaufman | Director | May 31, 2012 |
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| /s/ Alex Kornhauser Alex Kornhauser | Director | May 31, 2012 |
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| /s/ Yoav Doppelt Yoav Doppelt | Director | May 31, 2012 |
|----------------------------------|----------|--------------|

AUTHORIZED REPRESENTATIVE
IN THE UNITED STATES
Tower Semiconductor USA, Inc.
May 31, 2012

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

| Exhibit Number | Description of Document |
|-------------------|---|
| 5.1 | Opinion of Yigal Arnon & Co. |
| 23.1 | Consent of Yigal Arnon & Co. (contained in their opinion constituting Exhibit 5.1) |
| 23.2 | Consent of Brightman Almagor Zohar & Co. |
| 24.1 | Power of Attorney (set forth on signature page) |
