

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of May 2008 (No. 2)

TOWER SEMICONDUCTOR LTD.
(Translation of registrant's name into English)

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

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F Form 40-F

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes No

On May 19, 2008, the Registrant announced its financial results for the three months ended March 31, 2008. Attached hereto are the following exhibits

Exhibit 99.1 Press release dated May 19, 2008

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TOWER SEMICONDUCTOR LTD.

Date: May 19, 2008

By: /s/ Nati Somekh Gilboa

Nati Somekh Gilboa
Corporate Secretary

TOWER SEMICONDUCTOR REPORTS FIRST QUARTER 2008 FINANCIAL RESULTS

ACHIEVED REVENUE OF \$57.6 MILLION, REPRESENTING THE SECOND HIGHEST QUARTERLY REVENUE IN THE COMPANY'S HISTORY

MIGDAL HAEMEK, Israel - May 20, 2008 - Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), an independent specialty foundry, today announced financial results for the first quarter ended March 31, 2008.

HIGHLIGHTS

- o Recorded positive cash flow from operations for the sixth consecutive quarter and positive EBITDA for the tenth consecutive quarter
- o Decreased net loss by \$10.6 million year-over-year, representing an improvement of 26 percent
- o Initiated production of N-trig's Digitizer Chips in Fab 2 targeted at the convertible notebook market
- o Ramped production of Canesta's 3D Image Sensors in Fab 2 targeted at the automotive and gaming 3D camera market
- o Announced plan to pursue expanded opportunities within the European market

Revenue for the first quarter of 2008 was \$57.6 million as compared to revenue of \$55.6 million in the first quarter of 2007 and \$61.6 million in the prior quarter.

First quarter 2008 non-GAAP gross profit and operating profit, as described and reconciled below, totaled \$21.0 million and \$12.0 million, respectively, which represent 36.4 percent gross margin and 20.9 percent operating margin. Calculated in accordance with GAAP, net loss for the first quarter was \$29.6 million, or \$0.24 per share, an improvement of \$10.6 million as compared to \$40.2 million, or \$0.38 per share, for the same period in 2007.

"During the first quarter, we continued to execute on a number of key initiatives and customer engagements that resulted in the second largest revenue quarter in the Company's history despite the seasonality that is typically associated with our customer base and target markets," commented Russell Ellwanger, Chief Executive Officer of Tower Semiconductor, Ltd. "Furthermore, in accordance with our stated IDM specialty platform strategy, we achieved very high base line yield levels on new process platforms for two tier-one IDM customers in our first cycle of learning. Both platforms are expected to ramp in volume production over the next quarters. Additionally, our CMOS Image Sensor portfolio continues to expand with the inclusion of 3D imaging for automotive and gaming applications."

Tower expects that second quarter revenue will be in a range of between \$56 million and \$60 million.

FIRST QUARTER 2008 FINANCIAL RESULTS CONFERENCE CALL AND WEB CAST

Tower will host a conference call to discuss these results today, May 20, 2008, at 10:00 a.m. Eastern Time (ET) / 5:00 p.m. Israel time. To participate, please call: 1-888-994-4498 (U.S. toll-free number) or 972-3-918-0685 (international) and mention ID code: TOWER. Callers in Israel are invited to call locally by dialing 03-918-0685. The conference call will also be Web cast live at <http://www.earnings.com> and at www.towersemi.com and will be available thereafter on both Web sites for replay for 90 days, starting at approximately 2 p.m. ET on the day of the call.

As previously announced, beginning with the fourth quarter of 2007, the Company presents its financial statements in accordance with U.S. GAAP. All historical amounts presented in this release, including the financial tables below, were recast to reflect the application of U.S. GAAP.

As used in this release, the term Earnings Before Interest Tax Depreciation and Amortization (EBITDA) consists of loss, according to U.S. GAAP, excluding interest and financing expenses (net), tax, depreciation and amortization and stock based compensation expenses. EBITDA is not a required GAAP financial measure and may not be comparable to a similarly titled measure employed by other companies. EBITDA should not be considered in isolation or as a substitute

for operating income, net income or loss, cash flows provided by operating, investing and financing activities, or other income or cash flow statement data prepared in accordance with GAAP.

This release, including the financial tables below, presents other financial information that may be considered "non-GAAP financial measures" under Regulation G and related reporting requirements promulgated by the Securities and Exchange Commission as they apply to our company. These non-GAAP financial measures exclude (1) depreciation and amortization expenses and (2) compensation expenses in respect of options granted to directors, officers and employees. Non-GAAP financial measures should be evaluated in conjunction with, and are not a substitute for, GAAP financial measures. The tables also present the GAAP financial measures, which are most comparable to the non-GAAP financial measures as well as a reconciliation between the non-GAAP financial measures and the most comparable GAAP financial measures. The non-GAAP financial information presented herein should not be considered in isolation from or as a substitute for operating income, net income or loss, cash flows provided by operating, investing and financing activities, or other income or cash flow statement data prepared in accordance with GAAP.

ABOUT TOWER SEMICONDUCTOR LTD.

Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM) is an independent specialty foundry that delivers customized solutions in a variety of advanced CMOS technologies, including digital CMOS, mixed-signal and RF (radio frequency) CMOS, CMOS image sensors, power management devices, and embedded non-volatile memory solutions. Tower's customer orientation is complemented by its uncompromising attention to quality and service. Its specialized processes and engineering expertise provides highly flexible, customized manufacturing solutions to fulfill the increasing variety of customer needs worldwide. Offering two world-class manufacturing facilities with standard and specialized process technologies ranging from 1.0- to 0.13-micron, Tower Semiconductor provides exceptional design support and technical services to help customers sustain long-term, reliable product performance, while delivering on-time and on-budget results. More information can be found at <http://www.towersemi.com>.

FORWARD LOOKING STATEMENT

This press release includes forward-looking statements, which are subject to risks and uncertainties. Actual results may vary from those projected or implied by such forward-looking statements. Potential risks and uncertainties include, without limitation, risks and uncertainties associated with: (i) the completion of the equipment installation, technology transfer and ramp-up of production in Fab 2 and raising the funds therefore, (ii) the cyclical nature of the semiconductor industry and the resulting periodic overcapacity, fluctuations in operating results, future average selling price erosion, (iii) having sufficient funds to satisfy our short-term and long-term debt obligations and other liabilities, (iv) operating our facilities at high utilization rates which is critical in order to defray the high level of fixed costs associated with operating a foundry and reduce our losses, (v) our ability to satisfy the covenants stipulated in our amended credit facility agreement, (vi) our ability to capitalize on increases in demand for foundry services, (vii) meeting the conditions to receive Israeli government grants and tax benefits approved for Fab2, the possibility of the government requiring us to repay all or a portion of the grants already received and obtaining the approval of the Israeli Investment Center for a new expansion program, (viii) our ability to accurately forecast financial performance, which is affected by limited order backlog and lengthy sales cycles, (ix) maintaining existing customers and attracting additional customers, (x) not receiving orders from our wafer partners and customers, which can result in excess capacity, (xi) our dependence on a relatively small number of products for a significant portion of our revenue, (xii) product returns, (xiii) our ability to maintain and develop our technology processes and services to keep pace with new technology, evolving standards, changing customer and end-user requirements, new product introductions and short product life cycles, (xiv) competing effectively, (xv) our large amount of debt and our ability to repay our short-term and long-term debt on a timely basis, (xvi) achieving acceptable device yields, product performance and delivery times, (xvii) our ability to manufacture products on a timely basis and to purchase the equipment to increase Fab2 capacity beyond 24,000 wafers per month and timely installation thereof, (xviii) our dependence on intellectual property rights of others and our ability to operate our business without infringing others' intellectual property rights, (xix) exposure to inflation, currency exchange and interest rate fluctuations and risks associated with doing business internationally and in Israel and (xx) business interruption due to fire, the security situation in Israel and other events beyond our control.

A more complete discussion of risks and uncertainties that may affect the accuracy of forward-looking statements included in this press release or which may otherwise affect our business is included under the heading "Risk Factors" in our most recent filings on Forms 20-F, F-3 and 6-K, as were filed with the Securities and Exchange Commission and the Israel Securities Authority. Future results may differ materially from those previously reported. The Company does not intend to update, and expressly disclaims any obligation to update, the information contained in this release.

Contact:

Tower Semiconductor
Limor Asif, + 972-4-650 6936
Limoras@towersemi.com

or:

Shelton Group
Ryan Bright, (972) 239-5119 ext. 159
rbright@sheltongroup.com

TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY
CONSOLIDATED BALANCE SHEETS
(DOLLARS IN THOUSANDS)

	MARCH 31,	DECEMBER 31,
	-----	-----
	2008	2007
	-----	-----
	UNAUDITED	

ASSETS		
CURRENT ASSETS		
CASH AND CASH EQUIVALENTS	\$ 32,374	\$ 44,536
TRADE ACCOUNTS RECEIVABLE	42,185	44,977
OTHER RECEIVABLES	3,805	4,748
INVENTORIES	34,398	27,806
OTHER CURRENT ASSETS	1,347	1,580
	-----	-----
TOTAL CURRENT ASSETS	114,109	123,647
	-----	-----
LONG-TERM INVESTMENTS	14,984	15,093
	-----	-----
PROPERTY AND EQUIPMENT, NET	520,518	502,287
	-----	-----
INTANGIBLE ASSETS, NET	31,855	34,711
	-----	-----
OTHER ASSETS, NET	10,652	11,044
	=====	=====
TOTAL ASSETS	\$692,118	\$686,782
	=====	=====
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES		
CURRENT MATURITIES OF CONVERTIBLE DEBENTURE	\$ 8,426	\$ 7,887
TRADE ACCOUNTS PAYABLE	55,988	49,025
DEFERRED REVENUE	9,935	--
OTHER CURRENT LIABILITIES	17,926	20,024
	-----	-----
TOTAL CURRENT LIABILITIES	92,275	76,936
LONG-TERM DEBT FROM BANKS	390,210	379,314
DEBENTURES	116,618	117,460
LONG-TERM CUSTOMERS' ADVANCES	16,059	27,983
OTHER LONG-TERM LIABILITIES	59,793	40,380
	-----	-----
TOTAL LIABILITIES	674,955	642,073
	-----	-----
SHAREHOLDERS' EQUITY	17,163	44,709
	=====	=====
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$692,118	\$686,782
	=====	=====

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

	THREE MONTHS ENDED MARCH 31,		
	2008	2007	2006
	GAAP	GAAP	GAAP
REVENUES	\$ 57,607	\$ 55,604	\$ 35,875
COST OF SALES	68,255	71,519	61,331
GROSS LOSS	(10,648)	(15,915)	(25,456)
OPERATING COSTS AND EXPENSES			
RESEARCH AND DEVELOPMENT	2,976	3,609	3,379
MARKETING, GENERAL AND ADMINISTRATIVE	7,768	8,077	5,849
	10,744	11,686	9,228
OPERATING LOSS	(21,392)	(27,601)	(34,684)
FINANCING EXPENSE, NET	(7,800)	(12,710)	(6,062)
OTHER INCOME (EXPENSE), NET	(428)	69	551
LOSS FOR THE PERIOD	\$ (29,620)	\$ (40,242)	\$ (40,195)
BASIC LOSS PER ORDINARY SHARE			
LOSS PER SHARE	\$ (0.24)	\$ (0.38)	\$ (0.56)
WEIGHTED AVERAGE NUMBER OF ORDINARY SHARES OUTSTANDING - IN THOUSANDS	124,228	105,060	71,872

TOWER SEMICONDUCTOR LTD. AND SUBSIDIARY
RECONCILIATION OF REPORTED GAAP TO NON-GAAP CONSOLIDATED STATEMENTS OF
OPERATIONS (UNAUDITED)
(DOLLARS IN THOUSANDS)

	THREE MONTHS ENDED MARCH 31, 2008		
	----- DEPRECIATION, AMORTIZATION AND STOCK BASED COMPENSATION EXPENSES NON-GAAP (SEE A, B, C BELOW) GAAP -----		
REVENUES	\$ 57,607	\$ --	\$ 57,607
COST OF SALES	36,650	31,605(A)	68,255
	-----	-----	-----
GROSS PROFIT (LOSS)	20,957	(31,605)	(10,648)
	-----	-----	-----
OPERATING COSTS AND EXPENSES			
RESEARCH AND DEVELOPMENT	2,744	232(B)	2,976
MARKETING, GENERAL&ADMINISTRATIVE	6,169	1,599(C)	7,768
	-----	-----	-----
	8,913	1,831	10,744
	=====	=====	=====
OPERATING PROFIT (LOSS)	\$ 12,044	\$(33,436)	\$(21,392)
	=====	=====	=====

(A) INCLUDES DEPRECIATION AND AMORTIZATION EXPENSES IN THE AMOUNT OF \$31,328 AND STOCK BASED COMPENSATION EXPENSES IN THE AMOUNT OF \$277.

(B) INCLUDES DEPRECIATION AND AMORTIZATION EXPENSES IN THE AMOUNT OF \$58 AND STOCK BASED COMPENSATION EXPENSES IN THE AMOUNT OF \$174.

(C) INCLUDES DEPRECIATION AND AMORTIZATION EXPENSES IN THE AMOUNT OF \$14 AND STOCK BASED COMPENSATION EXPENSES IN THE AMOUNT OF \$1,585.

	THREE MONTHS ENDED MARCH 31, 2007		
	----- DEPRECIATION, AMORTIZATION AND STOCK BASED COMPENSATION EXPENSES NON-GAAP (SEE D, E, F BELOW) GAAP -----		
REVENUES	\$ 55,604	\$ --	\$ 55,604
COST OF SALES	34,711	36,808(D)	71,519
	-----	-----	-----
GROSS PROFIT (LOSS)	20,893	(36,808)	(15,915)
	-----	-----	-----
OPERATING COSTS AND EXPENSES			
RESEARCH AND DEVELOPMENT	2,752	857(E)	3,609
MARKETING, GENERAL&ADMINISTRATIVE	6,310	1,767(F)	8,077
	-----	-----	-----
	9,062	2,624	11,686

	=====	=====	=====
OPERATING PROFIT (LOSS)	\$ 11,831	\$(39,432)	\$(27,601)
	=====	=====	=====

- (D) INCLUDES DEPRECIATION AND AMORTIZATION EXPENSES IN THE AMOUNT OF \$36,647 AND STOCK BASED COMPENSATION EXPENSES IN THE AMOUNT OF \$161.
- (E) INCLUDES DEPRECIATION AND AMORTIZATION EXPENSES IN THE AMOUNT OF \$705 AND STOCK BASED COMPENSATION EXPENSES IN THE AMOUNT OF \$152.
- (F) INCLUDES STOCK BASED COMPENSATION EXPENSES.

THREE MONTHS ENDED
MARCH 31, 2006

	DEPRECIATION, AMORTIZATION AND STOCK BASED COMPENSATION EXPENSES		
	NON-GAAP (SEE G, H, I BELOW)		GAAP
	-----	-----	-----
REVENUES	\$ 35,875	\$ --	\$ 35,875
COST OF SALES	23,297	38,034(G)	61,331
	-----	-----	-----
GROSS PROFIT (LOSS)	12,578	(38,034)	(25,456)
	-----	-----	-----
OPERATING COSTS AND EXPENSES			
RESEARCH AND DEVELOPMENT	2,227	1,152(H)	3,379
MARKETING, GENERAL&ADMINISTRATIVE	5,155	694(I)	5,849
	-----	-----	-----
	7,382	1,846	9,228
	=====	=====	=====
OPERATING PROFIT (LOSS)	\$ 5,196	\$(39,880)	\$(34,684)
	=====	=====	=====

- (G) INCLUDES DEPRECIATION AND AMORTIZATION EXPENSES IN THE AMOUNT OF \$37,835 AND STOCK BASED COMPENSATION EXPENSES IN THE AMOUNT \$199.
- (H) INCLUDES DEPRECIATION AND AMORTIZATION EXPENSES IN THE AMOUNT OF \$1,055 AND STOCK BASED COMPENSATION EXPENSES IN THE AMOUNT OF \$97.
- (I) INCLUDES DEPRECIATION AND AMORTIZATION EXPENSES IN THE AMOUNT OF \$11 AND STOCK BASED COMPENSATION EXPENSES IN THE AMOUNT OF \$683.