

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

(Amendment No. 2)*

TOWER SEMICONDUCTOR LTD

(Name of Issuer)

Ordinary Shares, par value NIS 15.00 per share

(Title of Class of Securities)

M87915274

(CUSIP Number)

12/31/2025

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- ☐ Rule 13d-1(b)
- ☒ Rule 13d-1(c)
- ☐ Rule 13d-1(d)

SCHEDULE 13G

CUSIP No. M87915274

	Names of Reporting Persons
1	Senvest Management, LLC
	Check the appropriate box if a member of a Group (see instructions)
2	☐ (a) ☐ (b)
3	Sec Use Only
	Citizenship or Place of Organization
4	DELAWARE

	Sole Voting Power
5	0.00
Number of Shares	Shared Voting Power
Beneficially	6 3,971,656.00
Owned by Each Reporting Person	Sole Dispositive Power
With:	7 0.00
	Shared Dispositive Power
8	3,971,656.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person
	3,971,656.00
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)
	☐
11	Percent of class represented by amount in row (9)
	3.6 %
12	Type of Reporting Person (See Instructions)
	IA, OO

SCHEDULE 13G

CUSIP No. M87915274

1	Names of Reporting Persons
	Richard Mashaal
	Check the appropriate box if a member of a Group (see instructions)
2	☐ (a)
	☐ (b)
3	Sec Use Only
4	Citizenship or Place of Organization
	CANADA (FEDERAL LEVEL)
	Sole Voting Power
5	0.00
Number of Shares	Shared Voting Power
Beneficially	6 3,971,656.00
Owned by Each Reporting Person	Sole Dispositive Power
With:	7 0.00
	Shared Dispositive Power
8	3,971,656.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person
	3,971,656.00
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)
	☐

	Percent of class represented by amount in row (9)
11	3.6 %
	Type of Reporting Person (See Instructions)
12	HC, IN

SCHEDULE 13G

Item 1.

Name of issuer:

(a) TOWER SEMICONDUCTOR LTD

Address of issuer's principal executive offices:

(b) Ramat Gavriel Industrial Park, P.O. Box 619, Migdal Haemek, Israel 2310502

Item 2.

Name of person filing:

This statement is filed by Senvest Management, LLC and Richard Mashaal, with respect to the ordinary shares, par value NIS 15.00 per share ("Ordinary Shares"), of Tower Semiconductor Ltd., an Israeli company (the "Company"). The reported securities are held in the account of Senvest Master Fund, LP and Senvest Technology Partners Master Fund, LP (collectively, the "Investment Vehicles"). Senvest Management, LLC may be deemed to beneficially own the securities held by the Investment Vehicles by virtue of Senvest Management, LLC's position as investment manager of the Investment Vehicles. Mr. Mashaal may be deemed to beneficially own the securities held by the Investment Vehicles by virtue of Mr. Mashaal's status as the managing member of Senvest Management, LLC. None of the foregoing should be construed in and of itself as an admission by any Reporting Person as to beneficial ownership of the securities reported herein.

Address or principal business office or, if none, residence:

(b) Senvest Management, LLC 540 Madison Avenue, 32nd Floor New York, New York 10022 Richard Mashaal c/o Senvest Management, LLC 540 Madison Avenue, 32nd Floor New York, New York 10022

Citizenship:

(c) Senvest Management, LLC - Delaware Richard Mashaal - Canada

Title of class of securities:

(d) Ordinary Shares, par value NIS 15.00 per share
CUSIP No.:

(e) M87915274

Item 3. If this statement is filed pursuant to §§ 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

- (a) ☐ Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o);
- (b) ☐ Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);
- (c) ☐ Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c);
- (d) ☐ Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8);
- (e) ☐ An investment adviser in accordance with § 240.13d-1(b)(1)(ii)(E);
- (f) ☐ An employee benefit plan or endowment fund in accordance with § 240.13d-1(b)(1)(ii)(F);
- (g) ☐ A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);
- (h) ☐ A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) ☐ A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- ☐ A non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J). If filing as a non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J), please specify the type of institution:
- (k) ☐ Group, in accordance with Rule 240.13d-1(b)(1)(ii)(K).

Item 4. Ownership

(a) Amount beneficially owned:

The information required by Item 4(a) is set forth in Row 9 of the cover page for each of the Reporting Persons and is incorporated herein by reference. The percentage set forth in this Schedule 13G is calculated based upon an aggregate of 111,845,587 Ordinary Shares outstanding as of May 31, 2025, as reported in Exhibit 99.1 to the Issuer's Report of Foreign Issuer on Form 6-K filed with the Securities and Exchange Commission on June 12, 2025.

Percent of class:

(b)

3.6 %

(c)

Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote:

The information required by Item 4(c)(i) is set forth in Row 5 of the cover page for each of the Reporting Persons and is incorporated herein by reference.

(ii) Shared power to vote or to direct the vote:

The information required by Item 4(c)(ii) is set forth in Row 6 of the cover page for each of the Reporting Persons and is incorporated herein by reference.

(iii) Sole power to dispose or to direct the disposition of:

The information required by Item 4(c)(iii) is set forth in Row 7 of the cover page for each of the Reporting Persons and is incorporated herein by reference.

(iv) Shared power to dispose or to direct the disposition of:

The information required by Item 4(c)(iv) is set forth in Row 8 of the cover page for each of the Reporting Persons and is incorporated herein by reference.

Item 5. Ownership of 5 Percent or Less of a Class.

☒ Ownership of 5 percent or less of a class

Item 6. Ownership of more than 5 Percent on Behalf of Another Person.

If any other person is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, such securities, a statement to that effect should be included in response to this item and, if such interest relates to more than 5 percent of the class, such person should be identified. A listing of the shareholders of an investment company registered under the Investment Company Act of 1940 or the beneficiaries of employee benefit plan, pension fund or endowment fund is not required.

The Investment Vehicles have the right to receive and the power to direct the receipt of dividends from, and the proceeds from the sale of, the Ordinary Shares.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person.

Not Applicable

Item 8. Identification and Classification of Members of the Group.

Not Applicable

Item 9. Notice of Dissolution of Group.

Not Applicable

Item 10. Certifications:

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect, other than activities solely in connection with a nomination under ?? 240.14a-11.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Senvest Management, LLC

Signature: /s/ Bobby Trahanas

Name/Title: Bobby Trahanas, Chief Compliance Officer

Date: 02/12/2026

Richard Mashaal

Signature: /s/ Richard Mashaal

Name/Title: Richard Mashaal, Individually

Date: 02/12/2026