

Tower Semiconductor Ltd.

May 7, 2025

Rating Affirmation

'iIAA' Rating Affirmed, Outlook Stable

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Overview

Key Strengths	Key Risks
<ul style="list-style-type: none"> • High competitive position in the analog chip market. • Long-term relationships with clients. • Low leverage. • Strong liquidity. 	<ul style="list-style-type: none"> • Relatively concentrated customer base. • Diseconomies of scale, requiring the Company to invest in R&D and fixed assets in order to maintain its technological advantage.

Tower Semiconductor Ltd. (“Tower” or “the Company”) posted improved operating results in **2024**. The Company's revenue grew by about 1% to about \$1.44 billion, mainly due to an increase of about 7% in the share of revenue from chips for radio frequency (RF) infrastructure and of about 7% in the share of revenue from chips for cellular RF infrastructure. Adjusted EBITDA grew by about 5% to about \$496 million and profitability increased to about 34.6% from about 33.2%. In the past year Tower ceased operations at its Israeli plant established in 1984, and transferred part of the production capacity to its second Israeli plant, a move that contributed to increasing operational efficiency and profitability. In addition, the plant in Italy began operating in the fourth quarter of 2024.

Gross adjusted debt decreased by about 22% in to about \$181 million, despite large investments of about \$430 million in 2024 and 2023, inter alia for the purpose of continuing to increase production capacity. Tower maintained an adjusted gross debt to EBITDA ratio below 1x, commensurate with the rating.

We estimate that the Company will maintain low leverage in 2025-2026 despite continued investments. We believe that debt will continue to decrease in the medium term due to continued net capital lease payments. As a result, we expect the adjusted gross debt to EBITDA ratio to remain in the 0.5x-1.0x range in 2025-2026. At the same time, we expect the Company to continue to invest about \$400 million - \$500 million annually, in line with its long-term strategy to increase its 12" chip production capabilities in order to maintain its competitive market position. We expect the Company will continue to use ongoing cash flows for investments and growth and will not distribute dividends in the medium term.

Outlook

The stable outlook reflects our assessment that Tower will maintain its competitive position in the analog chip market and strong liquidity in the medium term. We also expect the Company to maintain adequate utilization rates and profitability. We expect the Company to maintain an adjusted gross debt to EBITDA ratio below 1.5x, commensurate with the rating.

Downside Scenario

We may lower the rating if Tower’s competitive position is undermined. This could happen if market conditions worsen, leading to lower utilization rates in the Company’s factories and to a continued or material decline in profitability. The rating will also come under pressure if the Company consistently fails to generate positive cash flows and if its adjusted gross debt to EBITDA exceeds 1.5x.

Upside scenario

We may consider a positive rating action if Tower’s business risk profile materially improves, as reflected, inter alia, by a larger market share, maintaining the current profitability through the business cycle, wider geographical spread of its factories, and a wider client base and product variety compared to peers.

Company Description

Tower Semiconductor Ltd. is an Israeli company engaged in the processing and production of silicon wafers as a pure play foundry according to the design specifications of its customers, which are used in a wide variety of products in different markets, including personal consumer, communication, automotive, industrial and medical products. Tower also provides engineering support services and ancillary manufacturing services. The Company produces in seven facilities located in Israel, Japan and Italy.

Base Case Scenario

Assumptions

- About 5% revenue growth in 2025 due to expected growth in the 12” product platform and RF (radio frequency) infrastructure revenues. We expect that increased production capacity at the plants in Italy and the U.S. will contribute to an additional revenue growth of about 3% in 2026.
- An adjusted EBITDA margin of about 33% in 2025-2026.
- Capital expenditure of about \$500 million - \$600 million on maintenance and new investments.
- No dividend distribution.

Key Metrics

Financial Ratio	2024A	2025E	2026E
Debt/EBITDA	0.4x	0.2x-1.0x	0.2x-1.0x
FFO/debt	~260%	>100%	>100%

A - actual. E – Estimate. FFO – funds from operations.

We are taking into account gross debt, without deducting cash.

Business Risk

Tower's business risk profile is supported by a leading market share in its niche – production and processing of silicon wafers, and by its competitive position as one of the leading analog specialty foundries in the world. The Company's business risk profile is also supported by high barriers to entry based on technological know-how, long-term relationships with clients and high replacement costs when changing chip suppliers, since up to 18 months may pass between the initial order of a product and its commercial manufacturing, due to the design and development process.

On the other hand, Tower's business risk profile is constrained by its niche-type activity and by its product variety compared with global peers, and is affected by inherent risks in the chip industry and by diseconomies of scale. These two factors require the Company to invest heavily in R&D and fixed assets in order to maintain its technological advantage. We believe the fast technological developments in the chip market constitute a material risk for the Company. However, the analog chip segment on which Tower focuses is characterized by lower investments compared with the digital chip segment, as analog chip technology is less affected by the chip-size minimization race which largely dictates the need to develop new technologies and make large investments. Accordingly, the life cycle of the products and technologies in the analog chip segment tends to be longer.

Tower's business risk profile is also constrained by its concentrated customer base: the Company's largest client, Nuvoton Technology Corporation Japan, was responsible for over 10% of Company revenues in the past three years, and its five largest clients - for over 40% of revenues.

In the medium to long term we believe that in order to expand its operations, Tower will continue investing in enhancing its microchip production capacity and improving utilization in its factories. This is in accordance with the agreement it signed with Intel in September 2023 for production space at Intel's factory in New Mexico, U.S.A., and in accordance with the partnership agreement it signed in 2021 with ST Microelectronics Srl to construct a factory in Italy, which began operations in 2024. Both plants are designed for the production of 12" chips and in both Tower is using part of the space for production of the chips using its own machines. Last year, Tower discontinued the operation of one of its plants in Israel, which was established in 1984 and was used to produce 6" chips, whose profitability was relatively low. It transferred part of the old factory's capacity to the second factory in Israel that produces 8" chips, thus streamlining the production process.

Financial Risk

Tower's financial risk profile reflects its low leverage, similar to other companies in the microchip industry, but potentially high volatility in operating performance over the business cycle due to the high

correlation between demand and the business cycle, production and utilization rates at the Company's factories.

The Company's revenue grew by about 1% in 2024 to about \$1.44 billion, mainly due to an increase of about 7% in the share of revenue from chips for radio frequency (RF) infrastructure and of about 7% in the share of revenue from chips for cellular RF infrastructure. Adjusted EBITDA grew by about 5% to about \$496 million and profitability increased to about 34.6% from about 33.2% in 2023.

Despite large investments of about \$430 million in 2023 and 2024, inter alia for the purpose of continuing to increase production capacity, Tower's gross adjusted debt decreased by about 22% to about \$181 million at year end, from about \$232 million at year-end 2023. In 2024 the Company maintained an adjusted gross debt to EBITDA ratio below 1x, commensurate with the rating.

We estimate that, in the medium term, the Company will continue investing given the need to increase its product offering and production capacity, and that its adjusted gross debt to EBITDA ratio will remain below 1x in 2025-2026. We also expect the Company will continue supporting growth in the upcoming years, and therefore will refrain from distributing dividends in the short term.

Table 1.

Tower Semiconductor Ltd. -- Financial Summary (Mil. \$)

Industry Sector: High Tech Equipment

	2024	2023	2022	2021	2020
Revenue	1,436.1	1,422.7	1,677.6	1,508.2	1,265.7
EBITDA	496.4	472.6	614.2	469.9	356.2
Funds from operations (FFO)	468.5	455.2	596.7	456.7	351.6
Interest expense	4.2	4.6	5.9	7.6	7.1
Cash interest paid	4.3	4.7	4.7	4.9	7.0
Working capital changes	(68.4)	(47.9)	(123.7)	(7.1)	(65.6)
Cash flow from operations	453.1	681.2	535.4	428.5	283.8
Capital expenditure	436.2	444.5	366.4	313.8	313.7
Free operating cash flow (FOCF)	16.9	236.7	169.0	114.7	(29.8)
Discretionary cash flow (DCF)	16.9	236.7	169.0	114.7	(29.8)
Cash and short-term investments	1,218.2	1,236.4	1,005.8	764.6	710.9
Gross available cash	1,218.2	1,236.4	1,005.8	764.6	710.9
Debt	180.8	231.6	272.3	314.8	390.3
Equity	2,640.2	2,427.0	1,888.5	1,615.4	1,454.9
Adjusted ratios					
Annual revenue growth (%)	0.9	(15.2)	11.2	19.2	2.6
EBITDA margin (%)	34.6	33.2	36.6	31.2	28.1
Return on capital (%)	8.1	9.5	14.6	9.2	5.4
EBITDA interest coverage (x)	118.2	101.9	103.7	61.6	50.1
FFO cash interest coverage (x)	108.9	97.6	128.1	94.6	51.3
Debt/EBITDA (x)	0.4	0.5	0.4	0.7	1.1

	2024	2023	2022	2021	2020
FFO/debt (%)	259.1	196.6	219.1	145.1	90.1
Cash flow from operations/debt (%)	250.6	294.2	196.6	136.1	72.7
FOCF/debt (%)	9.4	102.2	62.1	36.4	(7.6)
DCF/debt (%)	9.4	102.2	62.1	36.4	(7.6)

Data are based on S&P Global Ratings adjusted number and ratios.

Liquidity

According to our criteria, the Company's liquidity is "strong". We estimate that the ratio between the Company's sources and uses will exceed 1.5x in the next 12-24 months. This assessment mainly reflects expected operating cash flow and the Company's cash and liquid investment balance, which are sufficient to support its investment and working capital needs. We note that the Company has a large amount of liquid and available assets to finance its debt maturities in the next two years. In addition, the Company intends to avoid distributing dividends in the medium term in accordance with its organic-growth-oriented strategy.

We estimate the Company's main sources and uses in the 12 months starting January 1, 2025, to be as follows:

Principal Liquidity Sources	Principal liquidity uses
<ul style="list-style-type: none"> Cash and liquid investments of about \$1.2 billion. Cash FFO of about \$300 million - \$400 million. 	<ul style="list-style-type: none"> Debt maturities of about \$6.5 million. Working capital needs of about \$50 million Capital expenditure (capex) of about \$500 million - \$600 million.

Modifiers

Diversification/portfolio effect: Neutral (no impact)

Capital structure: Neutral (no impact)

Liquidity: Strong (no impact)

Financial policy: Neutral (no impact)

Management and governance: Neutral (no impact)

Comparable ratings analysis: Positive

Environmental, Social, And Governance

ESG factors have an overall neutral influence on our credit analysis of Tower Semiconductor Ltd.

Reconciliation

In order to create a basis for comparison with other rated companies, we adjust the data reported in the financial statements which we use to calculate financial ratios. The main adjustments to Tower Semiconductor Ltd.'s consolidated data for 2024 are adding share-based payments to EBITDA and adding lease-related obligations to reported debt.

Table 2.

Tower Semiconductor Ltd.--Reconciliation Of Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. \$) for the Fiscal Year Ended Dec 31, 2024

	Debt	Shareholders' equity	EBITDA	Operating income	Interest expense	S&P Global Ratings' adjusted EBITDA	Cash flow from operations
Reported Amounts	99.5	2,653.3	457.6	191.3	4.0	496.4	448.7
S&P Global Ratings adjustments							
Cash taxes paid	--	--	--	--	--	(23.5)	--
Cash interest paid	--	--	--	--	--	(4.3)	--
Reported lease liabilities	81.3	--	--	--	--	--	--
Operating leases	--	--	4.6	0.2	0.2	(0.2)	4.4
Share-based compensation expense	--	--	34.2	--	--	--	--
Nonoperating income (expense)	--	--	--	30.8	--	--	--
Noncontrolling interest/minority interest	--	(13.1)	--	--	--	--	--
Total adjustments	81.3	(13.1)	38.8	30.9	0.2	(27.9)	4.4
S&P Global Ratings adjusted amounts							
	Debt	Equity	EBITDA	EBIT	Interest expense	Funds from operations	Cash flow from operations
Adjusted	180.8	2,640.2	496.4	222.3	4.2	468.5	453.1

Related Criteria And Research

- [Principles Of Credit Ratings](#), February 16, 2011
- [Methodology: Industry Risk](#), November 19, 2013
- [Country Risk Assessment Methodology And Assumptions](#), November 19, 2013
- [Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers](#), December 16, 2014
- [Corporate Methodology: Ratios And Adjustments](#), April 1, 2019
- [Group Rating Methodology](#), July 1, 2019
- [Environmental, Social, And Governance Principles In Credit Ratings](#), October 10, 2021
- [Methodology For National And Regional Scale Credit Ratings](#), June 8, 2023
- [Corporate Methodology](#), January 7, 2024

- [Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers](#), January 7, 2024
- [Sector-Specific Corporate Methodology](#), April 4, 2024
- [S&P Global Ratings Definitions](#), December 2, 2024

Ratings List

Tower Semiconductor Ltd.	Rating	Date when the rating was first published	Date when the rating was last updated
Issuer rating(s)			
Long term	iIAA/Stable	09/05/2016	01/05/2024
Issuer Credit Rating history			
<u>Long term</u>			
May 03, 2022	iIAA/Stable		
April 30, 2018	iIAA-/Stable		
May 10, 2017	iIA+/Stable		
May 09, 2016	iIA/Stable		

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