

# Electronics



Silicon wafers made by Komatsu Electronic Metals

The mission of our electronics business is to become the most reliable partner for customers by providing leading-edge and original products and services through technological innovation in the core business domains of electronic materials for semiconductors and semiconductor manufacturing-related equipment. We are working to contribute to improving customer's productivity and competitiveness.

Consolidated net sales from the electronics business for the year increased 7.0% over the previous year, to ¥91.1 billion (US\$877 million), consisting of Japanese sales of ¥49.0 billion (US\$471 million), up 9.5%, and overseas sales of ¥42.1 billion (US\$406 million), up 4.3% over the previous year. Supported by improved business results from Formosa Komatsu Silicon Corporation, a Taiwanese subsidiary of Komatsu Electronic Metals Co., Ltd., segment profit amounted to ¥4.5 billion (US\$44 million), regaining a profit from a loss of ¥800 million for the previous fiscal year.

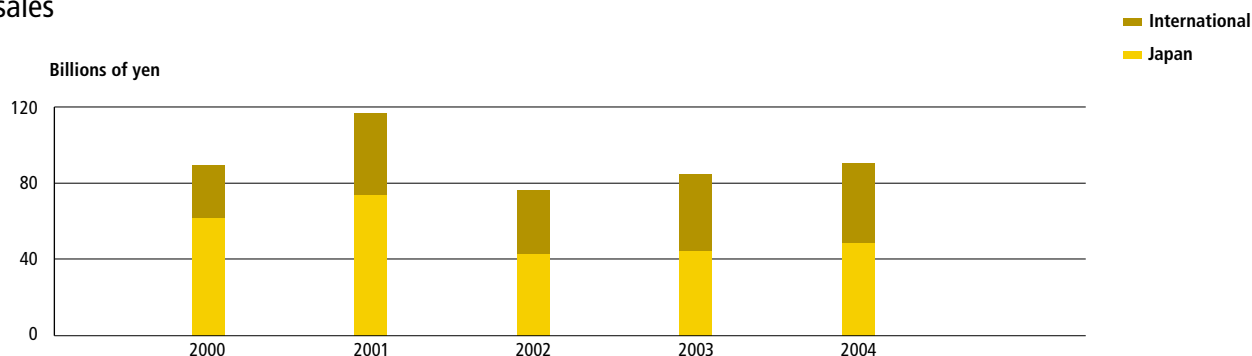


## Komatsu Electronic Metals

In the silicon wafers business handled by Komatsu Electronic Metals, demand sustained a note of slow recovery during the year with steady growth for 200mm and 300mm wafers in tandem with the semiconductor market.

Komatsu Electronic Metals and its consolidated subsidiaries conducted aggressive sales efforts in Japan and abroad. With respect to their mainstay 200mm wafers, they worked to enhance the competitiveness of high value-added products centering on the epitaxial and annealed wafers, while striving

## Net sales



to expand sales of discrete wafers by responding to customer needs. Concerning 300mm wafers, while operating the production line at the Miyazaki Plant, Komatsu Electronic Metals has steadily strengthened its production capacity by building an integrated production line from a single crystal silicon pulling to the final polishing process at the Nagasaki Plant.

While Komatsu Electronic Metals and subsidiaries experienced difficult conditions for generating profits, including lower prices, the adverse effects of the Japanese yen's appreciation, and a smaller-than-anticipated sales volume of 300mm wafers, they stepped up all-out efforts to further improve operational efficiency and total cost reductions in order to secure profits.

Formosa Komatsu Silicon Corporation in Taiwan increased its prime wafer ratio by including high value-added, annealed wafers in its product portfolio, and implemented customer-tailored sales activities in Taiwan and the rest of Asia. The Taiwanese subsidiary also reinforced its collaboration with Komatsu Electronic Metals in technology, production, sales and all other areas, improved profits by taking full advantage of its production capacity, and built up a solid market position as a leading manufacturer of silicon wafers in Taiwan.

#### **Enhancing competitiveness by utilizing research resources of the Komatsu Group**

Komatsu Electronic Metals is proactively engaging in joint research with Komatsu in order to strengthen the competitiveness of its silicon wafer business. For each production process for silicon wafers, the company is working to improve productivity and the resultant reduction of production costs, by introducing the original machinery that incorporates Komatsu's proprietary mechanical controls technology. The company is also making full use of Komatsu's research resources to develop higher value-added products. Komatsu Electronic Metals will continue its collaboration with Komatsu and work to further enhance its competitive edge.

#### **Advanced Silicon Materials**

Advanced Silicon Materials LLC (ASiMI), accelerated sales of monosilane gas to semiconductor and LCD panel manufacturers during the year. Monosilane gas is generated in the process of producing polycrystalline silicon.

Sales of polycrystalline silicon as a raw material for silicon wafers declined from the previous year, as the market environment remained tough with intensified pricing competitions. As a result, total sales of ASiMI declined from the previous year. With respect to profits, however, ASiMI improved profitability substantially with the benefits of a consolidation of plants which was carried out at the end of fiscal 2002.

#### **Making fundamental improvement in profitability**

Although its profitability is positioned for recovery, ASiMI anticipates that difficult business conditions, including a belated elimination of the supply-and-demand gap of polycrystalline silicon for semiconductor manufacturing, will remain into the future, and thus revaluated its fixed assets and recorded an impairment loss of ¥17.5 billion (US\$169 million). As a result of improved balance sheets, ASiMI should generate a profit in the next fiscal year.

#### **Komatsu Electronics**

Komatsu Electronics, Inc. expanded sales of semiconductor manufacturing-related equipment in the second half period against the backdrop of recovered investments by semiconductor manufacturers. Sales of thermoelectric modules for fiber optic communications also made gains for the year, reflecting steady progress in inventory adjustment on the market, while a full recovery of demand was yet to be seen. As a result of continued efforts to reduce fixed and production costs coupled with increased sales, the company has improved profitability to a break-even point.



Komatsu Electronics' cooling plate for 300mm silicon wafers