

Pac Tech, GmbH to Open U.S. Electroless Wafer Plating Facility

Establishes California Sales and Marketing Office

Leading German Company to Open Bay Area's First Electroless Plating Facility for Chip Scale Package, Flip Chip and Wafer Scale Integration Technologies

MENLO PARK, Calif. – July 6, 1999 – PacTech, a leading German integrated circuit subcontractor in the electroless nickel/gold/copper plating and tin/lead bumping and equipment industry, today announced it has opened a sales and marketing office in Fremont, Calif. A local bumping and equipment facility is scheduled by Q1 of 2001 in Santa Clara County. The 10,000 square-foot facility will support advanced interconnect technologies, including chip scale packages (CSP), flip chip and wafer scale integration and support a total capacity of more than 180,000 200mm diameter wafers per year. In the new facility, plating cycle times will be scheduled from three to five days, depending upon wafer size, complexity and volume.

The PacTech USA facility will offer its customers electroless under bump metal (UBM) and solder bumping services, a fully automated PacLine 2000 Bumping Line, licensing of this technology, training, local technical support, and related state-of-the-art laser-based flip chip bonding equipment.

PacTech currently has a 10,000 square-foot plating and bumping facility in Nauen, Germany and an equipment facility in Berlin.

“By establishing a sales and marketing office in California, we can work closely with our U.S. semiconductor customers to provide them with the service and technologies they need to compete in the worldwide market,” said Ronald G. Blankenhorn, newly appointed president of PacTech USA. “Today, cycle times are critical in the semiconductor industry as the average product life cycle of a new integrated circuit product design is approximately eight months. Time-to-market is an important factor in the success of our customers. All manufacturing process steps must be shortened to the absolute minimum, while remaining a quality, reliable, repeatable and cost-competitive product option. We will support the American market from engineering prototypes to high volume manufacturing.”

PacTech USA sales and marketing office is located at 1010 El Camino Real., Suite 300, Menlo Park, CA 94025 (www.pactech-usa.com).

About PacTech GmbH

PacTech is a bumping and packaging subcontractor for CSP packages based on electroless metallization. PacTech was founded in September 1995 by a team of researchers from the Fraunhofer Institut for Microintegration (IZM) Berlin and the Technical University of Berlin. In 1997 PacTech opened its current permanent bumping facilities in Nauen, 30 km west of Berlin. In December of 1998, PacTech opened its new clean room facility for subcontractor bumping with a capacity of 100,000 200mm diameter wafers per year.

A second business unit of PacTech consists of special equipment for laser bonding and bumping. In independent development, PacTech holds over twenty patents in the areas related to bumping, flip chip, chip scale packaging and laser bonding technology. In addition, PacTech has a demonstration center in the Technology and Innovation Center (Berliner Innovations and Gründerpark – BIG) located in the center of Berlin.

PacTech is further developing its technology through joint projects with the German government and European industrial community. As a result, PacTech has formed strategic alliances with US and Asian companies for the licensing, technology

transfer, and further development of bumping, flip chip and chip scale packaging technologies.

Atotech, a division of petrochemical giant ELF-Atochem formed a strategic alliance with PacTech GmbH to provide funding and technical support for low cost flip chip bumping and related products.

PacTech has sales offices in Germany, USA, Japan, Korea, Singapore, Malaysia, Taiwan and Scandinavia. Worldwide Headquarters are located at Am Schlangenhorst 15-17, 14641 Nauen, Germany; Tel +49-3321-4495-0; Fax +49-3321-4495-23; Web page: www.pactech.de