



PRESS RELEASE

CEA-Leti and SPTS to Collaborate On Next-Generation TSV Development

*Leading Research Institute and Equipment Maker to Develop
New Process Technologies for 3D-ICs*

TOKYO and GRENOBLE, France – Oct. 6, 2010 – CEA-Leti and SPP Process Technology Systems (SPTS) today announced they have agreed to develop advanced 300mm through-silicon via (TSV) 3D-IC processes at CEA-Leti's 300mm facilities in Grenoble, France. The agreement defines their collaboration on a range of 3D TSV processes to optimize etch and deposition technologies used to create next-generation high aspect ratio TSVs.

The partners will research alternative hardware and processes to address the need for new methods of cost-effective via fill. In some via-middle applications, where the via is created between contact and first back-end-of-line (BEOL) metal layer, via aspect ratios may extend beyond 10:1, and these very high aspect ratios require a new approach to current etch and deposition techniques.

"This agreement supports our mission of creating innovation and transferring it to industry," said Dr. Laurent Malier, CEO of CEA-Leti. "3D-IC technology plays a key role in enabling cost-effective performance for the entire micro-electronics industry. Whether for nomadic devices, data centers, MEMs or optical devices, 3D-ICs form the basis of building cost-effective, high performance chips with multiple functionalities. Combining Leti's advanced research and development knowledge with the technical expertise from an equipment manufacturer with proven production capabilities will cover the complete range of Copper-based TSV processes."

"We are thrilled that this agreement brings two organizations together in an environment optimized for joint equipment-and-process development," said Kevin Crofton, managing director, SPTS UK Division, and executive vice president, SPTS. "Our etch, physical vapor deposition (PVD) and chemical vapor deposition (CVD) systems are acknowledged technology leaders in the field of TSVs. Leti and SPTS understand the importance and value of creating an optimized TSV solution, and both acknowledge that it is most effective when the wafer-processing-technology and device experts are working together on integrated process flows."

"The strong relationship between our two organizations continues with this agreement," added Susumu Kaminaga, chairman of SPTS and president of Sumitomo Precision Products (SPP). "Building on a tradition of close collaboration, this agreement benefits the TSV community with research findings that will increase device performance on more cost-competitive packages."

TSV technology is quickly gaining industry prominence as this method of 3D integration facilitates a thinner interconnect layer between stacked devices, allowing higher density interconnectivity to produce better electrical performance, all resulting in increased functionality and cost-efficiencies.

About CEA-Leti

CEA is a French research and technology public organisation, with activities in four main areas: energy, information technologies, healthcare technologies and defence and security. Within CEA, the Laboratory for Electronics & Information Technology (CEA-Leti) works with companies in order to increase their competitiveness through technological innovation and transfers. CEA-Leti is focused on micro and nanotechnologies and their applications, from wireless devices and systems, to biology and healthcare or photonics. Nanoelectronics and microsystems (MEMS) are at the core of its activities. As a major player in MINATEC campus, CEA-Leti operates 8,000-m² state-of-the-art clean rooms, on 24/7 mode, on 200mm and 300mm wafer standards. With 1,200 employees, CEA-Leti trains more than 150 Ph.D. students and hosts 200 assignees from partner companies. Strongly committed to the creation of value for the industry, CEA-Leti puts a strong emphasis on intellectual property and owns more than 1,500 patent families. For more information about Leti, please visit www.leti.fr.

About SPTS

SPP Process Technology Systems was established in October 2009 as the vehicle for the merger of Surface Technology Systems and to acquire assets of Aviza Technology. The company is a wholly-owned subsidiary of Sumitomo Precision Products Co., LTD, and designs, manufactures, sells, and supports advanced semiconductor capital equipment and process technologies for the global semiconductor industry and related markets. These products are used in a variety of market segments, including R&D, data storage, MEMS and nanotechnology, advanced 3-D packaging, LEDs, and power integrated circuits for communications. For more information on SPTS please see www.spp-pts.com

About Sumitomo Precision Products Co., Ltd:

Sumitomo Precision Products Co., Ltd, headquartered in Amagasaki (Japan), has, over the past 90 years, expanded from their core field of aerospace products into such diverse areas as heat-exchangers and heat-control systems, industrial machinery employing hydraulic control, equipment for semiconductor and flat panel display production, ozone generators for protecting the environment and unique motion sensors. For more information about SPP, please visit www.spp.co.jp

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