



PRESS RELEASE

Altatech Semiconductor's 300 mm CVD System Being Used in 3D IC Pilot Production at ASSID

Flexible AltaCVD Tool Filling TSVs with Highly Conformal Dielectric Liners

MONTBONNOT, France – 11 October 2011 – All Silicon System Integration Dresden (ASSID), a leading-edge microelectronic wafer-level packaging and system integration center operated by the Fraunhofer IZM Institute, has begun pilot-line production of 3D semiconductor devices using a single-wafer, multi-chamber AltaCVD 300 system from Altatech Semiconductor S.A.

At Fraunhofer IZM-ASSID's 970-square-meter cleanroom facility in Dresden, Altatech's 300 mm CVD system is depositing conformal dielectric liners inside through silicon vias (TSV) to create advanced 3D ICs and system-in-package (SiP) devices. The TSVs being filled have aspect ratios up to 10:1 and diameters as small as 10 microns.

"With Altatech's excellent support, their AltaCVD 300 tool gives us the flexibility to deposit dielectric films with both high-pressure CVD and PECVD, enabling us to integrate the various layers of our 3D devices," said M. Jürgen Wolf, manager of Fraunhofer IZM-ASSID. "We're achieving excellent quality in film conformality, uniformity and integrity at low processing temperatures below 400°C."

Fraunhofer IZM-ASSID is developing enhanced 3D integration, assembly and interconnection technologies to enable the heterogeneous integration of different chip functionalities within a single packaged device. The advantages of multi-function 3D semiconductor devices include faster communication between device layers, reduced power consumption and smaller chip footprints. These characteristics enable greater processing performance in different application areas such as mobile electronics, image and security applications.

"After previously releasing our advanced CVD systems for front-end and memory processing, we are now delivering deposition tools for TSV isolation and conductive layers," said Jean-Luc Delcarri, president of Altatech Semiconductor. "The AltaCVD system's performance in low-temperature processing and its ability to accommodate both 200 mm and 300 mm wafers without changing the hardware within the chamber

is generating great market acceptance among both R&D facilities and commercial semiconductor manufacturers.”

About Fraunhofer IZM-ASSID

Opened in May 2010, the All Silicon System Integration Dresden (ASSID) center of Fraunhofer IZM is specially designed for projects in 3D wafer-level system integration (200 mm/300 mm) and prototype development and manufacturing purposes for partners in industry. As part of the Fraunhofer IZM Institute, which specializes in transferring IC advanced packaging and system integration research results to industry, ASSID is integrated into a technology network of applied research institutes and universities.

About Altatech Semiconductor S.A.

Incorporated in 2004, Altatech Semiconductor manufactures liquid-vaporization CVD, wafer inspection and analysis, and inkjet nanoprinting equipment at its headquarters facility near Grenoble and France’s epicenter of microelectronics production. Led by a management team with more than 30 years of experience in the semiconductor equipment industry, the company is focused on helping customers to achieve the fastest design-to-market cycle times for products serving the emerging semiconductor, MEMS and nanotechnology markets. For more information, visit www.altatech-sc.com.

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NOTE TO EDITORS: A high-resolution photo of the AltaCVD 300 system is available upon request.

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