



Applied Materials's Epi Centura Selected by LETI to Advance SiGe Process Development

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Applied Materials System and Support Seen as Essential
for SiGe and SiGeC Development

Adding to several recent announcements highlighting the success of its epitaxial technology, Applied Materials, Inc. today disclosed that LETI (Laboratoire de Technologies et d'Instrumentation), the French advanced microelectronics research center based in Grenoble, purchased an Epi Centura(R) system to develop silicon germanium (SiGe) and silicon germanium carbon (SiGeC) process technologies. In connection with this purchase, Applied Materials will collaborate with LETI to develop and optimize the new SiGe and SiGeC process technologies for future high-performance devices.

Dr. Christophe Wyon of LETI said, "The Epi Centura, along with Applied Materials' applications expertise, provide us with the right solution to create and enhance silicon germanium-based processes for advanced circuit designs. Based on many previous and current collaborations with Applied Materials, we have a high regard for its technology and world-class support. We expect our new development arrangement with Applied Materials, which includes an exploration of low-temperature pre-clean technology, to provide added value to our research."

According to Stan Bruederle, chief analyst for RF semiconductors and fiber optic modules at market research firm Dataquest, "Silicon germanium is starting to appear on technology roadmaps for high-speed data communications and wireless devices. This shift is due to the record high frequencies, low power consumption and miniaturization enabled by silicon germanium. Given these advantages, we expect to see silicon germanium-based chips used in future products ranging from cellular phones to fiber optic communications systems to satellite communications systems."

Silicon germanium carbon is a new material, which may enable even higher transistor speeds than standard SiGe applications. Unlike other alternative alloys such as gallium arsenide (GaAs), both SiGe and SiGeC are complimentary to silicon and require minimal modification to existing manufacturing lines. As a result, silicon germanium-based chips are more cost effective to produce.

"The Epi Centura provides the industry with proven technology that can sustain current and future process development," said Grant Imper, general manager of Applied Materials' Epi Division. "Its ultra-low pressure and low-temperature technology are especially well suited for silicon germanium applications. As a result, customers are expected to be able to quickly characterize new silicon germanium-based processes and bring them to market using the same platform. LETI's selection of the Epi Centura for these applications confirms that it is the system of choice for leading-edge research and development."

LETI, the CEA's (Commissaria a l'Energie Atomique) advanced electronics, technology and instrumental laboratory, is one of the most important laboratories in Europe in the field of applied research in electronics. LETI has a 900-member permanent staff and an annual budget greater than \$130 million. The laboratory performs research in various electronic areas from optronics to flat panel displays, as well as microtechnologies and microelectronics. LETI is known for its SOI (silicon on insulator) technology and cooperation with GRESSI (Grenoble Submicron Silicon Initiative) and CNET (the Centre National d'Etudes et de Telecommunication) on advanced 0.12 micron CMOS technology. The principal customer for LETI's microelectronics activities is ST Microelectronics.

Applied Materials, Inc. is a Fortune 500 global growth company and the world's largest supplier of wafer fabrication systems and services to the global semiconductor industry. Applied Materials is traded on the Nasdaq National Market System under the symbol "AMAT." Applied Materials' web site is <http://www.AppliedMaterials.com>.