Soitec and Sumitomo Electric announce major milestone in strategic joint development of engineered gallium nitride substrates

Bernin, France, and Tokyo, Japan, January 24, 2012 — Soitec (Euronext) and Sumitomo Electric Industries have reached a major milestone in their strategic joint development program started in December 2010 by demonstrating four- and six-inch engineered gallium nitride (GaN) substrates and launching pilot production lines to enable wider market adoption. These substrates ? produced by transferring ultra-thin high quality GaN layers from a single GaN wafer to produce multiple engineered GaN substrates ? are ideally suited for manufacturing advanced high-brightness light-emitting diodes (LEDs) for the lighting market and power-efficient controllers for the electric vehicles and energy markets.

Leveraging Sumitomo Electric's manufacturing technology for GaN wafers and Soitec's proven Smart Cut™ layer-transfer technology, this strategic alliance project had originally produced two-inch wafers. With the successful demonstration of GaN wafers' scalability, the partner companies are now proceeding with the next step to invest and establish pilot production lines in Itami, Japan, and Bernin, France. The pilot lines will initially fabricate four-inch wafers with six-inch wafer production to quickly follow to support customers demand.

Sumitomo Electric will manufacture bulk free-standing GaN substrates in Japan for shipment to France, where Soitec will apply its Smart Cut layer-transfer process to generate the final engineered wafers with the same thermal expansion (CTE) as GaN wafers. The resulting wafers have low defect density, enabling the manufacturing of advanced semiconductor devices at lower costs than bulk GaN wafers.

"Our partnership's successful demonstration of four- and six-inch engineered GaN substrates' scalability is a critical milestone, accomplished by applying very strong innovative capabilities from both sides," said Frédéric Dupont, vice president of Soitec's Specialty Electronics Business Unit. "The advanced substrates we are developing will allow the introduction of a new materials platform with novel and advanced functionalities."

Yoshiki Miura, general manager of the Compound Semiconductor Materials Division at Sumitomo Electric, said, "With layer-transfer technology's production readiness now proven for larger wafers, the substrates can be made even more cost effectively for large-volume production. We look forward to continuing our successful collaboration with Soitec to fulfill the requirements of the LED and energy markets, which represent amazing business opportunities."

For more information about Sumitomo Electric, visit the web site at http://global-sei.com [1].

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