

## PRESS RELEASE

### Lasertec Corporation

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(Code 6920 / Tokyo Stock Exchange, 1st Section)

### **Lasertec announces the adoption of SICA Wafer Inspection/Review tool by a leading Silicon Carbide wafer supplier**

**Yokohama, Japan, May 28th, 2015 – Lasertec Corporation** announced today that, Showa Denko K.K., a leading manufacturer of the high-end SiC epitaxial wafers, became latest adopter of Lasertec's SICA, SiC wafer inspection and review system, as PTOR (Process Tool of Record) in their mass production line.

Showa Denko has established the mass production know-how to manufacture large diameter SiC epitaxial wafers with extremely low level defect density and one of the best uniformity. Its technologies made Showa Denko an industry leader in SiC epitaxial wafers and renowned for its high-quality products. SICA has been fully utilized in Showa Denko's R&D since 2011 as an enabling technology. This time, Showa Denko decided to introduce the latest, high throughput version of SICA to its mass production line as part of its ongoing efforts to further enhance its SiC epi-wafer quality.

Silicon Carbide is one of new materials with properties suitable for power semiconductors and is being viewed as a vitally important option for power device manufacturing. For this reason, high quality SiC epitaxial wafers are becoming critical components in the supply chain. Amidst various challenges, one of the most important factors in the mass production of high-quality SiC wafers is defect reduction – most commonly generated during grind and epitaxial processes. More specifically, it is extremely important to accurately and quickly detect and categorize defects that affect the device performance. Eliminating the killer defects early in the process ensures high device yield in mass production. Defects of interest (DOI) include not only scratches and epi-defects on the wafer surface but also crystal-related defects such as basal plane dislocations (BPD) and stacking faults (SF) inside Epi-layers.

Lasertec officially released the SICA in 2009. Since then, continuous improvements have transformed the SICA into a state of art defect inspection/review system for SiC with installations worldwide. Lasertec is now exploring a photoluminescence-based technology that enables the detection of crystal defects at a significantly higher throughput. The integration and simultaneous reporting function of this new feature, in conjunction with the existing surface defect capabilities, will make SICA one of the fastest and easiest defect detection and root cause



analysis tools available in the market.

**About Lasertec:**

As a leader in metrology and inspection tooling, Lasertec Corporation has been serving the needs of semiconductor, compound semiconductor, renewable energy, FPD and other high technology industries for many years. Since its beginning in 1960, Lasertec has been evolving and growing to keep pace with the world's rapidly expanding and changing high technology manufacturing requirements. In addition to the innovative technologies, Lasertec's global support infrastructure assures customers full satisfaction through high tool availability that maximizes the capital investment and device yield. For more information, go to: [www.lasertec.co.jp](http://www.lasertec.co.jp).

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