Lumileds leads LEDs into mass production on 150 mm

I-Micronews

Philips Lumileds is the first power LED manufacturer in mass production on 150 mm wafers and is now producing millions of GaN based LEDs weekly on the larger substrates.

Lumileds claims to have the most advanced LED manufacturing and operations environment and capability in the world. The company continues to lead the industry in never before possible lumen-per-dollar and lumen-per-watt performance in lighting applications and in the drive to increased adoption of solid-state lighting solutions.

“The addition of 150 mm manufacturing capacity to our existing capability leverages our epitaxy and wafer fabrication technology excellence and gives Lumileds the capacity to produce billions of LUXEON LEDs annually,” said **Matthijs Glastra**, Executive VP of Worldwide Operations for Philips Lumileds. *“We expect that the pace of LED adoption will require all other manufacturers to follow our lead and adopt similar strategies. Their challenge will be to achieve the high yields and quality levels that we have already demonstrated.”*

Each 150 mm wafer produces four times the number of LEDs as the current 3-inch wafers. The transition to a larger wafer size is broadly viewed as a critical path to providing the increasing volume of LEDs required by the lighting industry and ensuring a supportable and secure supply chain.

Philips Lumileds will continue its current wafer production while ramping production of its 150 mm capacity to meet increasing demand for high quality, high performance LEDs from the lighting, automotive, and consumer electronics segments.

Capacity expansion is a key driver in the adoption of LED technology. The ability to add additional high capacity epitaxial reactors with enhanced productivity and yield means that the company has a lower need for capital expenditures and can drive cost down as volume increases. *“Some of the newer entrants to LED manufacturing require many more reactors to match our volume capacity,”* continued **Glastra**.

Lumileds’ engineers, scientists, and system operators in San Jose and Singapore have installed, customized, and optimized equipment to meet the company’s exacting production standards and ensure that the company’s processes deliver the world-class light output, efficacy, reliability, and quality of light customers expect and depend on.

Philips Lumileds is a leading provider of power LEDs for illumination solutions. The

company's leading light output, efficacy and thermal management are direct results of the ongoing commitment to advancing solid-state lighting technology and enabling lighting solutions that are more environmentally friendly, help reduce CO2 emissions and reduce the need for power plant expansion. Philips Lumileds' LUXEON LEDs are enabling new solutions for shop, outdoor, office, school, and home lighting applications.

Royal Philips Electronics of the Netherlands is a diversified health and well-being company, focused on improving people’s lives through timely innovations. As a world leader in healthcare, lifestyle and lighting, Philips integrates technologies and design into people-centric solutions, based on fundamental customer insights and the brand promise of “sense and simplicity”.

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