

The worldwide high-brightness LED market grew from \$11.3bn in 2010 to \$12.5bn in 2011, a growth rate of 10%%, according to LED market analyst Strategies Unlimited.

Demand for LED components in the lighting market grew 44%, from \$1.2bn to \$1.8bn.

On the supply side, 10 companies accounted for almost 70% of the LED market.

Top 10 suppliers in the LED market for 2011, by revenue of packaged LED components, are:

1. Nichia
2. Samsung LED
3. Osram Opto Semiconductors
4. LG Innotek
5. Seoul Semiconductor
6. Cree*
6. Philips Lumileds*
8. Sharp
9. TG
10. Everlight

Philips Lumileds, Cree, and Osram Opto Semiconductors' expansion into 150 mm substrates slowed as there was a great deal of excess capacity in their existing 100 mm lines. The Japanese LED business has trended down or flat. Osram OS gained a major design win, which propelled its visible LED component business to more than \$1bn.

In lighting, the same supply conditions that reduced the price of LEDs increased the demand for packaged LED in lighting applications from \$1.2bn in 2010 to \$1.8bn in 2011. System efficiency, rather than LED efficacy, was the gate factor in 2011. The LED luminaire and replacement lamp market was \$9.3bn in 2011, an increase of 45% over 2010. The market for LEDs in lighting is expected to demonstrate substantial unit growth over the next five years, but revenue growth will be much lower due to pricing pressure.

In the automotive sector, revenue reached \$1bn in 2011. Conditions look right for a 5-year compound annual growth rate of 34% for LED headlamps. In addition to the styling issues, this

is part of the trend to convert all front lighting to LEDs, as it will provide more front-end room for the car designer and reduce the overall system cost.