

## **POWERLASE Lasers Help LG Electronics Meet Increasing Demand for Flat-Panel Displays**

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- *World leading electronics manufacturer places order for Additional high-power Starlase AO8 lasers*
- *The new lasers will increase production capacity of Plasma Display Panel (PDP) televisions*
  - *RLP production methods are driving down costs.*

**Crawley, England – 1<sup>st</sup> August 2007**, POWERLASE Limited, manufacturers of the world's most powerful nanosecond Q-switched, diode-pumped solid state (DPSS) lasers, today announces the volume purchase of the high-powered Starlase AO8 laser by LG Electronics. LG will integrate the new lasers with existing systems to ramp-up production capacity of Plasma Display Panels (PDP).

The AO8 laser is a further development of the proven Starlase series. It has been specifically designed to address PDP manufacturing requirements. The AO8 employs the highest power in its class and offers customers a unique combination of features, allowing rapid material processing and the ability to replace existing industrial processes.

The introduction of the Starlase laser range to the PDP market has led to a wide-spread uptake of laser technology and associated manufacturing techniques. High-profile manufactures, such as LG, have benefited from improved production costs and processes following the implementation of the laser systems.

The new lasers will be used in conjunction with other POWERLASE systems previously purchased by LG and are the essential component of the Rapid Laser Patterning process (RLP). RLP is replacing wet-etch photolithography methods used to create patterning on flat-panel screens. The new technique has been successful in driving down production costs by greatly reducing the number of steps involved in the manufacturing process.

Tony King, CEO at POWERLASE, explains: "The introduction of the POWERLASE laser systems has significantly altered flat-panel production methods. The previous wet-etch technique was a six-step process and required multi-million dollar area steppers and patterning

equipment. With the RLP technique the lasers directly pattern the ITO surface used as the flat-panel screen, removing the need for the stepper machine and patterning equipment and cutting production to a two-step process. Manufacturing PDPs in this manner is much more efficient and results in production costs being driven down.”

“We are delighted to be working with LG to help minimise manufacturing costs whilst driving the quality and efficiency of PDP manufacture with an established global leader.”

A spokesman for LG Electronics commented: “The POWERLASE lasers we have used to date have been extremely efficient in improving the production process of PDPs. Demand for high-quality PDP and flat-panel televisions has increased significantly in recent years, and these new laser systems will ensure we are able to meet consumer needs both now and in the future.”

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## **About POWERLASE**

POWERLASE Limited is an innovative, independent, high power Laser Company, focused on Diode Pumped Solid State lasers developed for industrial applications primarily for use in the materials processing and microelectronics markets for flat panel displays, microelectronics, automotive and aerospace sectors.

POWERLASE is supported by venture capital from MTI Partners, Deutsche Venture Capital, Esprit Capital Partners LLP (formerly Cazenove Private Equity), Alice Ventures and FNI Venture Capital.

POWERLASE Limited is ranked as the fifth fastest growing venture capital-backed company in the UK in the Daily Telegraph 2006 Business Growth Rankings.

## **About LG Electronics**

LG Electronics conducts business in over 39 countries and is one of the major suppliers of PDPs and LCDs. LG Electronics has a mid-term and long-term vision to rank amongst the top 3 electronics, telecommunications, and information companies in the world by 2010.

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