

"Lasorb" Series Designed for 445nm Blue Laser Diodes



Pangolin Laser Systems, the world's largest producer of laser display software and control hardware, announced the expansion of its LASORB product line with a series of components designed to protect 445nm laser diodes from damage by direct and indirect electrostatic discharge, including single, multiple, and repeated ESD events of positive or negative polarity. LASORB, a class of component invented by Pangolin, is described as an "ESD absorber" created specifically to protect laser diodes, photodiodes, and LEDs.

"We continue to expand the LASORB line to meet specialized market needs," said William Benner, president and chief technology officer of Pangolin.

"Until recently, most short-wavelength laser diode development has been on 405nm lasers for disk-based storage," said Benner. "The new 445nm wavelength diodes are becoming popular for display applications because of their higher visibility, brighter output, and, compared to conventional LED bulbs, lower power consumption, lower heat output, longer life expectancy, and absence of hazardous elements like mercury."

"Casio's new 'Green Slim Projector' is an example of one product using the new diode," Benner said.

Pangolin first introduced LASORB last year and has continued to expand the product series to accommodate a broader range of laser diode products. According to Benner, the product has proven its effectiveness and value in a variety of research and commercial applications, including those using red, infrared, and Blu-ray

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diodes.

“Prior to LASORB, electrostatic discharge was a persistent, unsolved problem for laser diodes, especially Blu-ray and low-power single-mode red laser diodes,” he said. “Without LASORB, a single modest ESD event can cause permanent damage, resulting in partial or complete diode failure well ahead of the manufacturers’ rated life expectancy for the diode.”

Benner said LASORB also protects against reverse bias conditions. While Schottky diodes are typically used for this purpose, Benner said using LASORB in their place offered protection against both ESD and reverse biasing.

In addition to the newly announced series, Pangolin produces two other series of LASORB, one optimized for red and infrared diodes and a second optimized for 405nm Blu-ray diodes. The component package is compact and mounts in a 2-pin, through-hole configuration; Pangolin can also design custom packages, and an SMT version will be offered as well.

“LASORB is a game-changer with respect protecting lasers from ESD,” stated Benner. “There is nothing in the world like it. Previous so-called solutions for ESD all fail in some respect: they are either too slow to respond, ineffective in the required voltage range, or incapable of absorbing the energy of a voltage surge.”

Benner said LASORB customers currently include government, universities, and commercial companies in several countries and that it is being applied in fields of electronics, medicine, security, entertainment, and scientific research.

Web Videos Demonstrate Component’s Performance

Pangolin has set up a specific website for LASORB (www.lasorb.com) offering detailed product information and datasheets, background on laser diodes and ESD, a review of the limitations of previous ESD solutions in laser diodes applications, and links to other resources. The company has produced two videos demonstrating the effects of ESD on laser diodes, including Blu-ray diodes, and the effectiveness of LASORB in protecting them. The videos can be seen on the LASORB website (http://www.lasorb.com/11_videos.htm) or on YouTube: (<http://www.youtube.com/watch?v=1bvoC81ZsTM> and <http://www.youtube.com/watch?v=Bow7pL4n3Ak>).

About Pangolin Laser Systems and Co-Founder William Benner

With over 10,000 clients in 63 countries, Pangolin is the world’s leading developer and producer software and related control hardware for laser display applications in entertainment, business, and industry. The company, founded in 1986, has received more than 20 awards for technical achievement, including, most recently, an award for LASORB from the International Laser Display Assn. Pangolin is based in Orlando and has offices in Slovenia and China.

William Benner, Pangolin’s president, co-founder, and chief technology officer, has represented the United States in the International Skill Olympics and placed sixth in the world in the field of electronics. He holds several patents in the field of laser

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technology and electronics.

More information on LASORB is available at LASORB.com. More information on Pangolin is available at www.Pangolin.com [1]

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Links:

[1] <http://www.Pangolin.com>