

Volume excimer laser micro-machining

Having shipped its first IX 3000 system, a Class 1 UV Excimer-based laser step and scan ablation system for micro-machining, drilling, and laser processing to a customer in the Asian market in February, J P Sercel Associates (JPSA) is now promoting its new high volume equipment.

JPSA claims that the IX 3000 is a flexible, powerful, industrial-grade system, designed for high-volume throughput, with a high-accuracy mask imaging system for large field of view (FOV) processing applications. The system is also surrounded by a cleanroom enclosure with HEPA filtration mounted on the roof.

Operating at 248nm or 193nm UV wavelengths primarily; customers can choose from a variety of different types of lasers, depending upon the application, as large-area patterning, micro-via drilling, microelec-

tronics micro-machining; general drilling; manufacture of inkjet nozzle arrays; flat panel displays, wafer-scale processing; sensors; microfluidics; and many other applications, all with resolutions down to 1 micron.

Optical resolution, repeatability, and structural accuracies are sub-micron with 0.2 to 0.3 micron repeatability. The IX-3000 is granite-based, vibration and thermal dampened for optimum stability. The entire system is optimised for high-speed operation.

President Jeffrey P. Sercel said the system is an advanced, new generation offering low cost of ownership and operation from its "higher beam utilisation factor, enabling the use of less costly optics and systems components, and an overall lower hourly cost of operation than less efficient laser processing systems."

How long should optical media endure?

Knowing CDs and DVDs will last for a certain number of years is critical to government agencies, hospitals, banks and other organisations that store massive amounts of vital data on optical disks. But, how long is long enough?

To help the National Institute of Standards and Technology develop a standard test to estimate the longevity of recordable optical media, the DVD Association and the Government Information Preservation Working Group are asking federal agencies and organisations to answer a very brief survey concerning the longevity of optical media.

The test developed by NIST will not measure actual longevity, but will determine archival quality of the media and whether it will last a minimum number of years.

Researchers recently tested how well recordable optical disks made with different manufacturing processes held up when exposed to high temperatures, humidity and light levels.

They found some disks can be expected to store data reliably for several tens of years. The study research "*Stability Comparison of Recordable Optical Discs*," can be found at: www.itl.nist.gov/div895/gip-wog/index.html.

Cree's SiC diodes for hybrid autos

Durham-based Cree intends to convince automakers to use its SiC diodes in future hybrid vehicles as these enable computer servers and high-end PC's to operate faster and more efficiently, writes reporter Don Ross.

"The design cycles for automobiles are generally three to six years," said Cree's Raiford Garrabrant. "So, once you have a product available, it takes quite a while to prove it out to the designers and get it designed in those cars."

Cree says replacing the Si diodes in today's hybrid cars with their

SiC in the power supply system will lead to smaller, lighter-weight motors. That could result in greater fuel efficiency and 10 times more power.

Cree is best known as a maker of LED light technology. But its move into the hybrid car business earned the company a mention in Forbes Magazine, which is advising readers to consider investing in firms that make components for the hybrid cars.

Source: http://abclocal.go.com/wtvd/news/040705_NW_cree.html

Axcel Photonics shifts its ownership

Axcel Photonics, Inc has been bought by Dr J Jim Hsieh, founder of Lasertron and pioneer in the field of fiber-optic lasers. In addition, Dr Hsieh will take the post of CEO and has appointed Frank Hsieh as executive VP in charge of sales and marketing. Dr. Wei Gao, founder of Axcel Photonics, continues his duties as President.

"We plan to position Axcel as the world's leading manufacturer of high power diode lasers in terms of performance, reliability, and quality," said Dr Hsieh. "Axcel has the technology to produce extremely high power products. The next step is to make these readily available in the marketplace."

"With the industry's founding father as the company's leader, investor, and visionary, we are poised to set the standard for the next generation of products," noted Dr Gao. "His forty-plus years of semiconductor experience, no-nonsense business approach, and tremendous respect and credibility among industry peers puts us in very good hands."

nLight appoints UK distributor

nLight has selected Laser Lines (Industrial & Medical) Ltd as its exclusive UK distributor. Laser Lines will be responsible for sales and service of nLight's CW and QCW high-power visible and near-infrared diode laser product line.

Founded in 1975 by president/GM Ted Paine, Laser Lines is an international distributor of laser, electro-optic, and rapid prototyping equipment. The company is headquartered in Banbury, UK, where it occupies a 10,000sq.ft facility that includes fully equipped test and demonstration laboratories.

"We welcome Laser Lines as our exclusive distributor," said Merrill Apter, nLight's VP of sales and marketing. "We are continuing to expand the nLight global distribution network and Laser Lines provides an ideal conduit for customers in the UK."

"Not only does Laser Lines supply high-quality photonics products for OEM, research and materials processing applications, but they also work in close partnership with each customer to provide optimised, cost-effective solutions."