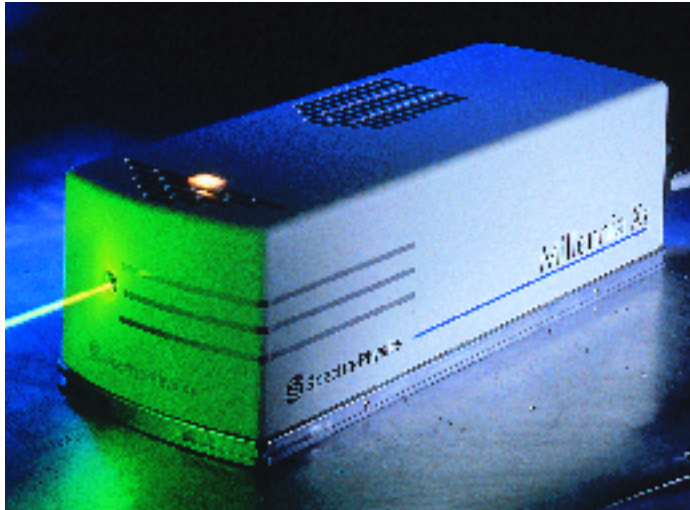


Diode-Pumped Laser



Spectra-Physics has launched a new generation of high-power, diode-pumped, solid-state lasers, the Millennia s Series. The company says the new lasers are 60% smaller than competitive models and use a patented intracavity doubling process to provide ultralow optical noise. The lasers are aligned and sealed at the factory, which means they require no adjustment or realignment by buyers. Applications include Ti:sapphire pumping and other scientific usage, and medical, entertainment, and industrial uses, including film subtitling and disk texturing. The four models in the series offer 532-nm output-power levels of 2, 5, 8, or 10 W.

Spectra-Physics Lasers, Inc.

**1335 Terra Bella Avenue
Mountain View, CA 94039-7013**

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External-Cavity Laser

Newport's new Model 2010 external-cavity tunable laser, a single-mode diode laser based on a Littman-Metcalf cavity, offers more than 20 different diode modules, which allow the user to scan wavelengths ranging from 632 to 1,780 nm. Changing wavelengths simply requires switching a self-aligned module, which takes only minutes. The 2010 combines narrow-linewidth operation (100 kHz) with a continuous tuning range, and both collimated free-space and fiber-coupled output versions are avail-

able. Applications include laser seeding, process-control monitoring, medical diagnostics, and fiber-optic testing and measurement.

Newport Corp.

**1791 Deere Avenue
Irvine, CA 92606**

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Reader Service Card**

Spectrometer

Bruker Analytical X-Ray Systems has introduced its new, compact, plug-in S4 Explorer x-ray spec-

trometer. It combines the high analytical performance and flexibility of a sequential wavelength-dispersive x-ray spectrometer with the



space-saving and cost advantages of an energy-dispersive x-ray spectrometer. The S4 Explorer provides a non-destructive and environmentally safe means of multi-elemental analyses in solids, powders, and liquids. It does not require dissolution of samples or disposal of hazardous-waste solvents, and it is precalibrated for all types of materials. The S4 Explorer is designed for use in a production environment or laboratory. It uses innovative measuring strategies and operates under Windows NT. Its automatic setup and calibration system is said to provide fast and simple installation.

Bruker Analytical X-Ray Systems

Bruker AXS GmbH

D-76181 Karlsruhe, Germany

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Optical Profiler

Burleigh Instruments' new Horizon non-contact optical profilometer uses interferometry to provide precise, nondestructive, three-dimensional measurements of the microscopic topography of smooth and rough surfaces. It enables users to measure areas as large as 1.6 × 1.6 mm with a Z range of 100 μm, and to quickly and accurately obtain measurements at the subnanometer level from such surfaces as silicon wafers, magnetic media, and polished optics. The Horizon profiler is advanced enough for the research or industrial laboratory, but it can be used also in the production environment on surfaces that include machined parts, ceramics, gratings, sensors, thin-film coatings, foil, plastics, and paper. Interference objective lenses are available from 2.5× magnification that allow the measurement of areas as small as 80 × 80 μm.

Burleigh Instruments, Inc.

Burleigh Park

Fishers, NY 14453-0755

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Reliability Test System

EXFO has released its new RTS-100 test system for measuring and quantifying laser diode reliability through elevated-tempera-



ture life tests. The RTS-100's database, application software, and aging-data analysis software provide tools that enable the development and qualifica-

tion of new components and designs. The system meets production-environment requirements for highly traceable and documented preshipment burn-in data of laser

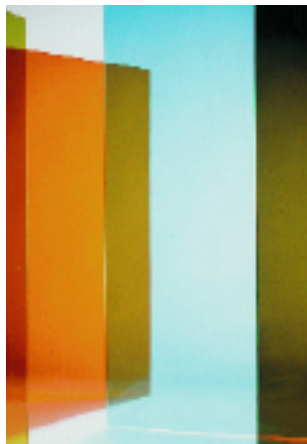
diode modules such as 980-nm and 1,480-nm pumps.

EXFO E. O. Engineering, Inc.
465 Godin Avenue
Vanier, QC, Canada G1M-3G7
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Laser-Protective Windows

Trinity Technologies offers protective windows for observation areas, viewing boxes, and equipment cabinets that allow the safe observation of operating lasers. The windows

are made of acrylic and are available for use with ultraviolet, CO₂, excimer, Nd:YAG, near-visible, and near-infrared lasers. Trinity's windows are sold in a standard size of 24 × 36 in., but the company will custom-cut larger or smaller sizes



on request. Trinity also provides a variety of laser safety eyewear.

Trinity Technologies
4110 Central Avenue, N.E.
Minneapolis, MN 55421
Circle No. 185 on Reader Service Card

X-ray Detectors

Detection Technology's new line of x-ray linear array detectors aims at the food, packaged-goods, and other industrial inspection and quality-control markets. The detectors can transilluminate products to inspect package contents, detect defects or foreign objects, or identify objects missing from containers. Depending on the type of detector, the maximum scanning speed varies from 0.6 m/s to 2.5 m/s, or 120 ft/min to 490 ft/min. The detectors provide 12-bit digital RS-422 output and are easily connected to image-processing cards in PC systems. The detectors, designed for use in harsh industrial environments, consist of two parts: the detector module, which

includes all signal-processing electronics, and a power supply.

Detection Technology, Inc.
Micropolis
FIN-91100 II, Finland
Circle No. 186 on Reader Service Card

Economical Lenses

New Focus offers a line of high-quality lenses designed for general-purpose applications such as building telescopes, mode matching, or simple beam collimation. Focal lengths of the 1-in.-diameter lenses range from 30 to 1,019 mm, and their broadband coatings are 350 to 650 nm or 625 to 1,100 nm. Each lens is engraved with its focal length, coating type, and model number.

New Focus, Inc.
2630 Walsh Avenue
Santa Clara, CA 95051-0905
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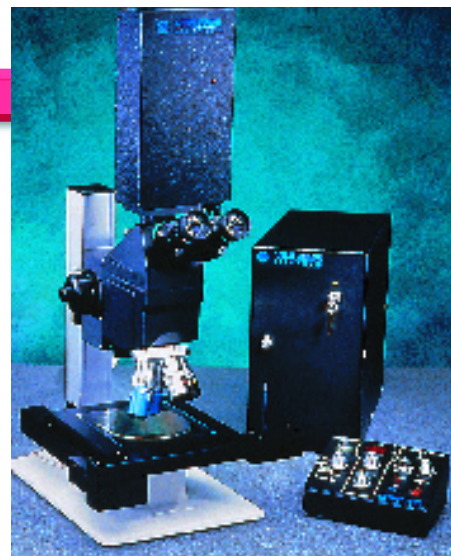
Touch Video Monitor

Nortech has introduced its CM2110 Industrial Touch Video Monitor, which it describes as the first such monitor with a built-in USB hub and USB video control system for adjusting display parameters under program control. The 21-in. digital CM2110 offers high resolution with a 0.26-in. dot pitch and a flat, square cathode-ray tube screen. The monitor has a maximum resolution of 1,600 × 1,200 pixels. Resistive, capacitive, and surface-acoustic-wave touch screens are available, as well as touch software drivers for DOS, Windows, Windows NT, and OS/2.

Nortech Engineering, Inc.
153 Washington Street
East Walpole, MA 02032-0266
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Laser Cutting System

New Wave Research has brought to market QuikLaze II, its second-generation pulsed, single- or multiwavelength Nd:YAG laser cutting system. It is designed for microelectronics machining, including trimming high-frequency gold capacitors and small batches of thick- and thin-film resistors, and cutting indium tin




oxide shorts on liquid-crystal display panels. It is also useful for removing polyimide, silicon nitride, aluminum, and gold and copper metal lines from semiconductor devices. QuikLaze II comes in models with user-selectable wavelengths of 1,064, 532, and 355 nm, or 532 and 266 nm. The system makes uniform, repeatable, single-shot cuts from 50 × 50 μm to 1 × 1 μm. Its video spot marker makes it easy to see each laser target.

New Wave Research
495 Mercury Drive
Sunnyvale, CA 94086
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Raman Microscope

Renishaw's Raman Imaging Microscope, which combines scanning spectroscopy and two-dimensional imaging in one system, provides graphic output of two-dimensional Raman images and two- and three-dimensional spectral plots. The microscope scans to a spatial resolution of 1 μm and a spectral resolution down to 0.2 cm⁻¹ using a 25-mW laser. Buyers can choose from an Ar+ (488 and 514 nm), a double Ar+ (244 nm), HeNe (633 nm), or semiconductor (~780 nm) laser. Renishaw describes its Raman microscope as ideal for research and quality inspection of semi- and superconductors, carbon fibers, pharmaceuticals, and diamond films, and for studying polymer coatings.

Renishaw, Inc.
623 Cooper Court
Schaumburg, IL 60173
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