

ProductNews

Vision Engineering Launches a New Digital Magnifier for Portable Inspection



Vision Engineering has launched Camβ (CamBeta), a new digital inspection magnifier for portable inspection and documentation. The new magnifier is a handheld inspection device, suitable for a wide range of applications. Camβ provides magnification up to 20× and stores up to 20,000 images. Camβ has been equipped with a dual LED illumination with four settings, high-contrast imaging, and 30 frames video capture capabilities.

Vision Engineering Ltd.
www.visioneng.com

New Multi-Sensor 3-CMOS Prism-Based Area Scan Camera



JAI launched a new multi-sensor industrial camera in the Apex Series. The Apex AP-3200T-USB is a 3-CMOS prism-based R-G-B area scan camera providing better color fidelity and spatial

precision than traditional Bayer color cameras. With the color enhancer tool, it is possible to strengthen specific colors in the image for additive hues and subtractive hues. This feature is particularly useful in certain applications such as microscopy and medical imaging.

JAI Inc.
www.jai.com/en/products/ap-3200t-usb

SEM Inspection of ICs at Low Beam Energies



SEM inspection is part of routine processes of root-cause failure analysis in semiconductor foundries. The new TESCAN S8000 is an ideal instrument for SEM investigations and failure analysis of modern semiconductor devices due to its excellent performance

at low beam energies, which is essential to image beam-sensitive structures in delayered ICs. The detection system in the TESCAN S8000 provides excellent topographical contrast suitable to monitor delayering processes.

TESCAN USA
www.tescan.com/en-us/technology/sem/tescan-s8000

Multi-Functional Microspectrophotometer Featuring UV-Visible-NIR, Photoluminescence, Raman, and Polarization Microspectra™



CRAIC Technologies has added Raman microspectroscopy to its 20/30 Perfect Vision™ microspectrophotometer. The 20/30 PV™ can acquire Raman spectra by integrating the new Apollo II™ Raman microspectrometer with the 20/30 PV™. Together, these two systems offer multiple laser wavelengths, in addition to UV-visible-NIR absorbance, reflectance, fluorescence, and emission microspectra™. The 20/30 PV™ features the ability to acquire images of these same microscopic samples in the UV, visible, and NIR regions.

CRAIC Technologies, Inc.
www.microspectra.com

NANOPSIS Super-Resolution Microscopy



Nanopsis has developed a new optical microscopy technology that allows for imaging below the theoretical limit of light microscopy to provide color images down to the 50 nm level. In the biological arena, this means that there is the potential to see live samples without protein fixation. In the semiconductor world, this technique allows imaging of features and regions of different colors due to different materials. The method bridges the gap between SEM and optical microscopy.

Angstrom Scientific, Inc. (USA) and AXT PTY LTD (Australia)
www.angstrom.us and www.axt.com.au

Raptor Launches the Ninox 1280, a High-Resolution, High-Sensitivity Cooled Vis-SWIR InGaAs Camera



Using a 1280 × 1024 InGaAs sensor from SCD, cooled to -15°C, the Ninox 1280 offers visible extension from 0.4 μm to 1.7 μm to enable

high-sensitivity imaging. It will offer less than 40 electrons readout noise combined with one of the lowest dark current readings on the market. The camera will provide an ultra-high intrascene dynamic range of 69 dB enabling simultaneous capture of bright and dark portions of a scene.

Raptor Photonics Ltd
www.raptorphotonics.com

Modular Lab Furniture Systems Designed to Meet Your Space and Budget Needs



HEMCO UniLine Furniture offerings include base cabinets, wall cabinets, countertops, sinks, fixtures, base-tables, mobile work stations, specialty storage cabinets, and peg boards. Our UniLine Casework Groupings

are designed to incorporate our most popular casework styles in a complete package. Our services can also include a full turnkey installation.

HEMCO Corporation
www.HEMCOcorp.com/labfurn.html

JAI Adds High-Speed Trilinear to its Line Scan Camera Offering



The SW-4000TL-PMCL trilinear camera expands the options for designers of color line scan-based systems, which have previously relied on JAI's Sweep+ Series of prism-based RGB and RGB+NIR line scan cameras to deliver the maximum in color image fidelity, sensitivity, and configuration flexibility. The

high-performance trilinear technology in the SW-4000TL-PMCL combined with a broad set of advanced features give designers an alternative for applications not requiring the ultimate precision provided by prism cameras.

JAI Inc.
www.jai.com

Best of Two Worlds: Combining Optical Tweezers with Time-Resolved Confocal Microscopy



PicoQuant and Ionovation combined time-resolved microscopy and optical tweezers in a single system. Both instruments retain their individual functionalities but can also be used together, thus enabling customers to carry out time-resolved fluorescence microscopy on trapped objects such as cells. PicoQuant's MicroTime 200 platform is the most flexible and extensible high-end research tool for time-resolved fluorescence microscopy requiring single-molecule sensitivity.

Ionovation GmbH and PicoQuant Photonics North America Inc.
www.picoquant.com

NIST-Traceable Color Transmission Calibration Slide for Digital Pathology Imaging



Developed with input from bright-field microscopy experts, the IAM-9C-SECCAL Color Transmission Calibration Slide from APPLIED IMAGE Inc. offers NIST-traceable color integrity of digitally captured microscopy images. The slide contains 24 colors in a 4 × 6 array. Each of the twenty-four 4150 μm-diameter patches is individually calibrated. Small patches of 1000 and 150 μm are exposed and processed at the same time to produce a good correlation of the large calibrated patches to the smaller ones.

APPLIED IMAGE Inc.
www.appliedimage.com

New Allied Vision Manta Models with Second-Generation Sony IMX CMOS Sensor



Allied Vision expands its Manta camera family with two new models incorporating second-generation Sony IMX CMOS sensors with Pregius global shutter pixel technology. The Manta G-158 incorporates the IMX273 sensor, offering a resolution of 1.58 megapixels and a frame rate of 75.3 fps at full resolution. The Manta G-040 is equipped with the IMX287 sensor delivering a resolution of 0.40 megapixels and a frame rate of 286 fps at full resolution.

Allied Vision Technologies GmbH
www.alliedvision.com

Basler ace – Now with Stacked ROI and PGI for Monochrome Cameras

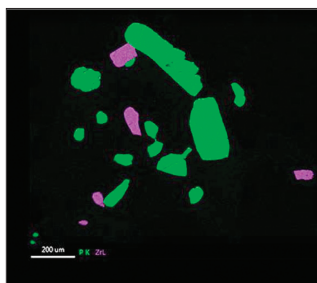


PGI, combining 5 × 5 debayering, color-anti-aliasing, denoising, and improved sharpness, has already simplified color applications in many areas. Now an adjusted version of this in-camera image optimization is available for monochrome cameras. The denoising and improved sharpness features of the

PGI are perfectly adapted to the demands of monochrome cameras. A debayered pixel format is not required for these cameras. As a result, raw images can be used, and the maximum sensor speed can be used.

Basler AG
www.baslerweb.com

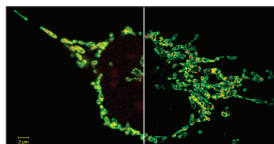
EDAX Launches Latest Revision of APEX™ Software for Element and Octane Elect EDS Systems



EDAX's APEX™ Analysis Software now is available for the Element and the Octane Elect EDS Systems. APEX™, developed to ensure high-quality results that accelerates and simplifies compositional analysis, delivers high-quality data processing along with accurate and reliable results. The APEX™ interface is user-friendly and can be customized for a specific workflow, offering a wide choice of layouts, colors, and data report formats.

AMETEK EDAX
www.edax.com

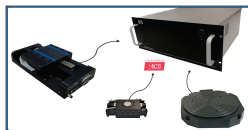
New 2D Superresolution Mode for ZEISS Airyscan



The ZEISS LSM 8 with Airyscan, with its unique 32-channel GaAsP array detector, captures more spatial information than traditional confocal microscopes. The new 2D Superresolution mode now uses this additional information to create an optical section of 0.2 Airy units and resolves structures down to 120 nanometers laterally in a single image. The Airyscan is an area detector that detects all fluorescence emission photons. Their information is used to deliver higher sensitivity, superresolution, and high acquisition speeds.

Zeiss
www.zeiss.com

Multi-Axis Precision Motion Controller: 4 / 6 / 8 Channels for Air Bearing Motion Systems



Nano precision motion industry leader PI (Physik Instrumente) LP has released a new high-performance motion controller designed to handle 4, 6, or 8 axes of PIGlide air bearing positioning stages and precision automation sub-systems. Air bearings provide many advantages compared to mechanical bearings, such as no-particle generation; frictionless, vibration-free motion; highly constant velocity control; nanometer-precision repeatability; and optimal geometric performance.

PI (Physik Instrumente) LP
www.pi-usa.us

EnviroMax Laminar Flow Clean Workstation



EnviroMax Laminar Flow Enclosures are engineered and built to meet critical clean requirements within the laboratory. Typical applications include liquid-handling stations, compounding, high-throughput screening, sample weighing, powder handling, HPLC equipment, and other related systems. The enclosure isolates the process while the HEPA filter system maintains a positive pressure and ISO 5 class 100 conditions by protecting the process from surrounding contamination. Optional worksurfaces and support tables or cabinets are available.

HEMCO Corporation
www.HEMCOcorp.com