



### MWIR Camera for Real-Time Thermal Analysis

The A6750sc MWIR (midwave-infrared) camera from FLIR Systems is suitable for recording fast thermal events due to its short exposure times and high frame rates. With its cooled InSb

(indium antimonide) camera, accurate temperature measurements can be carried out on fast-moving objects without motion blur, and a variety of nondestructive tests can also be performed. The FLIR A6750sc operates in the 3.0  $\mu\text{m}$ –5.0  $\mu\text{m}$  wavelength range, or 1.0  $\mu\text{m}$ –5.0  $\mu\text{m}$  when the broadband option is chosen, enabling precision measurements down to the short-wave infrared (SWIR) range. Its camera produces razor-sharp, detailed thermal images that are ideal for electronics inspections or material tests. Offering short integration times (<1 ms) and fast frame rates (to 125 Hz), the A6750sc can routinely image dynamic thermal processes on surfaces at room temperature. The maximum frame rate in the smallest frame mode is 4.1 kHz. The A6750sc offers the versatility of plug-and-play with third-party software due to its GigEVision and GenICam compatibility.

#### FLIR Systems

For info: 800-254-0630

[www.flir.co.uk/products/a6750sc-mwir](http://www.flir.co.uk/products/a6750sc-mwir)

### 3D/4D Stage

Applied Scientific Instrumentation's (ASI's) new compact 3D/4D stage is a precise, motorized motion-control system designed to move samples around fixed optics. It incorporates three ASI linear stages and an optional motorized rotating stage employed for a theta axis. The linear stages comprising the XYZ elements offer travel options of 25, 50, 100, or 200 mm, and each axis can be chosen separately. The linear stages derive smooth, accurate motion from closed-loop direct current servomotors, crossed-roller bearings, high-precision lead screws, and high-resolution encoders for positioning feedback. Like other ASI stages, they can move uniformly at extremely slow speeds for in-motion acquisition. All the stages offer various speed/accuracy options for a more customized 3D/4D system. The stage elements are rigidly attached together and usually mounted to a breadboard via an adapter plate.

#### Applied Scientific Instrumentation

For info: 800-706-2284

[www.asiimaging.com](http://www.asiimaging.com)

### Laser Confocal Scanning Microscope

The Olympus LEXT OLS5000 3D laser confocal scanning microscope delivers precise imaging in a fast, easy-to-use platform for R&D and quality control inspection in the automotive, electronic component, and semiconductor industries. 4K scanning technology and optics designed specifically for the OLS5000 enable detection of near-perpendicular features and small steps at near-nanoscale levels. The instrument acquires data quickly and improves user experience with intuitive software designed to automate many common settings. An expansion frame and a dedicated, long working-distance lens perform precise measurements on samples up to 210 mm in height and concavities up to 25 mm deep—even those with uneven surface cracks. The result is simple, accurate, noncontact 3D measurement of a wide variety of samples.

#### Olympus

For info: 800-225-8330

[www.olympus-ims.com](http://www.olympus-ims.com)

### Field Emission Scanning Electron Microscope

With the ZEISS GeminiSEM 450 field emission scanning electron microscope (SEM), users benefit from high resolution, surface-sensitive imaging, and an optical system that obtains the best analytical results—especially when working with low voltages. High-throughput electron backscatter diffraction (EBSD) analysis and low-voltage energy-dispersive X-ray spectroscopy (EDS) deliver superior performance due to the instrument's ability to precisely and independently control spot size and beam current. With the Gemini 2 design, the user can always work under optimized conditions, switching seamlessly between imaging and analytical modes at the touch of a button. In addition, the 450 can handle a wide range of sample types, from classical conductive metals to beam-sensitive polymers. Its variable pressure technology reduces charging on nonconductive samples without compromising InLens detection capabilities, simultaneously enabling high-resolution EDS analysis by minimizing the skirt effect. The ZEISS GeminiSEM 450 is a flexible instrument suited to a variety of applications in materials science, industrial labs, and life sciences.

#### ZEISS

For info: 800-233-2343

[www.zeiss.com](http://www.zeiss.com)

### Inverted Confocal Raman Microscope

The alpha300 Ri inverted Raman microscope from WITec combines the advantages of data acquisition from below with the established merits of 3D confocal Raman imaging—a powerful, versatile technique that can chemically characterize samples nondestructively and without labeling or other specialized preparation. Specimens in aqueous environments, such as cell cultures, can be examined more effectively. Standardized liquid-sample holder formats can be quickly mounted and measured, accelerating experimental workflow and helping ensure consistency. Materials science investigations will be aided by the very large working area that can accommodate bulky samples and the set focal plane. The motorized sample stage also facilitates the mounting of environmental enclosures and other accessories. Many modular components and upgrade possibilities developed for the alpha300 series are compatible with the Ri version. Other microscopy techniques associated with inverted microscopes, such as fluorescence, differential interference contrast, and phase contrast, can also be easily integrated.

#### WITec

For info: 865-984-4445

[www.witec.de](http://www.witec.de)

### Autofluorescence Quenching Kit

The TrueVIEW Autofluorescence Quenching Kit removes unwanted fluorescence in formalin-fixed paraffin embedded (FFPE) tissue samples, blood cells, and structural elements such as collagen and elastin. Autofluorescence often impairs or prevents the use of immunofluorescence assays when the specific stained antigen cannot be distinguished from the interfering background signal. This is particularly problematic with tissue samples preserved using the FFPE method. TrueVIEW specifically targets and eliminates background autofluorescence, retaining the intended specific fluorescent staining and enabling researchers to identify specific markers that cannot be seen otherwise. It is effective across the spectral range from blue to far-red, and is compatible with commonly used fluorophores. Applying TrueVIEW to sections is fast, requiring just 5 min for incubation. Ethanol steps and dilution are not required. The Vector TrueVIEW kit includes VECTASHIELD HardSet Antifade Mounting Medium and contains enough reagent for between 100 and 150 tissue sections.

#### Vector Laboratories

For info: 800-227-6666

[vectorlabs.com](http://vectorlabs.com)

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# Science

## New Products

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