

APEX CAMERAS FOR MICROSCOPY IMAGING

Compatible with
Image-Pro &
 μ Manager
image analysis
software packages

Low noise, high sensitivity prism color cameras fine-tuned for microscopy imaging in life sciences and industrial applications



Apex Series for microscopy:

JAI's new Apex series cameras are low noise, high sensitivity prism R-G-B color area scan cameras with 3 x 3.2 megapixels resolution (AP-3200T-USB-LS) and 3 x 1.6 megapixel resolution (AP-1600T-USB-LS). They offer a rich feature set for supreme color imaging and are fine-tuned for brightfield and fluorescence microscopy in life science as well as microscopy-based vision systems in industrial production processes. The cameras are designed with a prism light beam splitter that separates the incoming light into red, green and blue wavelengths, which are directed to three precisely aligned CMOS sensors. The prism technique provides better R-G-B color accuracy and spatial precision than traditional color cameras based on the Bayer mosaic technique. The full color information provided in every pixel is ideal in demanding microscopy applications where supreme color differentiation (for detecting subtle color nuances) and spatial resolution are key factors. Please read about selected applications on the back.

- 3 x 3.2 MP CMOS (38 fps over USB3 Vision).
- 3 x 1.6 MP CMOS (79 fps over USB3 Vision).
- Prism-based R-G-B area scan technology.
- Available with or without NIR cut filter.
- Supreme color fidelity.
- USB3 Vision interface.
- Flexible color space conversion.
- Color and edge enhancer tools.
- Robust design (Shock 50G and Vibration 3G).
- Analog gain/exposure setting for each individual R-G-B channel.
- Compatible with Image-Pro and μ Manager software

pre-screened to offer minimal levels of image artifacts from dust/FODs, providing maximum image quality for the most demanding life sciences and microscopy applications.



- ✓ **AP-3200T-USB-LS / LSX***
- ✓ 3 x 3.2 MP CMOS
- ✓ 38 fps over USB3 Vision
- ✓ IMX265



- ✓ **AP-1600T-USB-LS / LSX***
- ✓ 3 x 1.6 MP CMOS
- ✓ 79 fps over USB3 Vision
- ✓ IMX273

**) Pre-screened "LSX" models offer minimal levels of image artifacts from dust/FODs*



Highest levels of dust/FOD suppression:

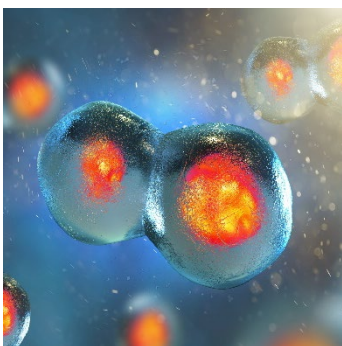
All Apex LS models provide exceptional image quality for most medical and life sciences applications, but some applications call for an even higher grade of image clarity, and here the LSX models are recommended. The Apex LSX models are all



See the possibilities

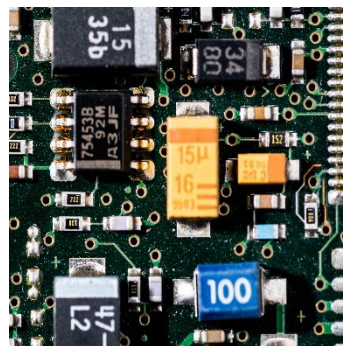
Apex Microscopy Series.

Low noise, high sensitivity RGB prism color cameras fine-tuned for fluorescence and brightfield microscopy imaging in life sciences and industrial applications.



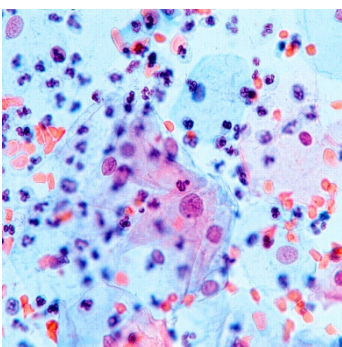
Live cell imaging

A frame rate of 38 fps (78 fps for 1.6MP model), in combination with supreme color fidelity, makes the Apex cameras very suitable for time-lapse microscopy in live cell imaging and in the general study of cellular dynamics.



Electronics manufacturing

In many manufacturing plants microscopy-based systems are also applied in quality inspection routines of wafers, flat panel displays and printed circuit boards. Very accurate color image data and high spatial resolution ensure precise error detection of semiconductor defects, incomplete wire bonding and other issues.



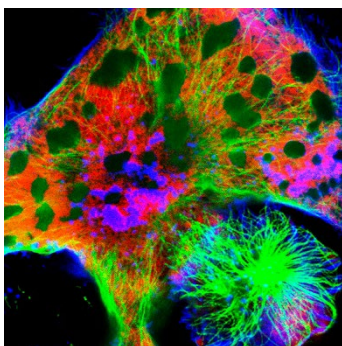
Digital pathology

With supreme color reproduction, high spatial resolution and color enhancement tools, the Apex Series cameras are ideal for microscopy-based systems used for tissue slice analysis, stain analysis, cell counting, cell classification and other applications in the pathology field.



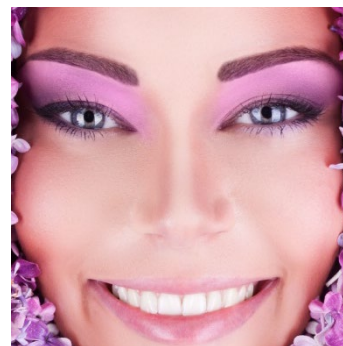
Security print and forensic applications

Due to very accurate color data and features like color and edge enhancement, the Apex Series is also ideal in microscopy-based systems for currency print inspection and in forensic applications.



Fluorescence microscopy

Fluorescent stains are often used to make specific cell proteins and other organic chemical compounds observable in microscopes. The individual setting of analog gain/exposure for each R-G-B channel is a unique camera feature and very useful in color fluorescence microscopy applications.





Other applications

Other applications where the Apex Series is ideal is in the field of material science such as metal surface analysis, stress/strain analysis, as well as in agriculture, and in dermatology analyzing the results of application of cosmetics to skin + many more applications where very accurate color image data is important.

Camera technology from JAI

JAI offers a broad range of high quality industrial camera technology for integration into our customers' vision inspection systems, serving a wide range of industries such as life science microscopy, pharmaceutical, semiconductor, automotive, food, sports/entertainment and more. Please contact JAI for a more detailed discussion of your camera needs in microscopy imaging for life science and industrial applications or read more about JAI and our camera offerings on www.jai.com

DOWNLOAD WHITE PAPER:
Learn how using the unique advantages of 3-CMOS prism technology helps you to achieve superior image quality factors, such as real and full-color depth, improved color contrast, and better color differentiation.

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|  |  |  |  |  |  |  |
| Apex Series
3-CMOS area scan cameras providing better color fidelity and spatial precision than traditional Bayer color cameras. | Go Series
Megapixel area scan cameras with small dimensions, high frame rates and cutting edge sensor technology. | Spark Series
Advanced area scan cameras delivering high resolution, high frame rates, and high image quality. | Sweep Series
Monochrome & trilinear CMOS line scan cameras with high resolution, fast scan rates and high image quality. | Sweep+ Series
Prism-based color line scan cameras combining highest color precision, fast line rates and multi-spectral options. | Fusion Series
Dual-sensor area scan cameras with unique capabilities for specialized multi-spectral and HDR imaging applications. | Wave Series
InGaAs dual-band line scan cameras capable of sensing Short Wave Infrared (SWIR) light. (900-1700 nm). |

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See the possibilities