

# HIGH DEFINITION COLOR CAMERA SERIES

## Excelis

HD MICROSCOPY CAMERAS

The new *Excelis* HD color microscopy cameras set a new standard for excellence in high definition imaging for scientific and industrial applications.

*Excelis* HD cameras are full featured HD cameras offering 60fps (AU-600-HD/S) or 30fps (AU-300-HD/S) in video preview with unrivaled color fidelity and on-board image capturing capability.



### Connect Your Way!

*Excelis'* unique system architecture is the only camera in its class to offer **simultaneous live image** output to an HD monitor and to a computer via USB 2.0. Images can be saved directly to a PC or Mac, or onto the SD card. Each camera is supplied with the PC/Mac-compatible on-board image capture software, as well as our full-featured *CaptaVision* PC image analysis software.



HDMI Output



USB2.0 Output



SD Storage



PC Compatible



Mac Compatible

**Easy to Use On-Board Software, Intuitive Interface & Simple to Install!**

Industrial • Pathology • Cytology • Histology • Gemology  
Brightfield • Phase Contrast • Fluorescence • Darkfield



**UNITRON**



## Superior Performance & Color

Built upon decades of microscopy and digital imaging experience, *Excelis* HD Series incorporates dual FPGA processors and unique algorithms that produce perfect color reproduction. The innovative technology of the *Excelis* HD cameras offers full 1080p video preview for HD output without any lag time or compression.

## Built-in Mouse Control Software For HDMI Viewing & Recording Without a Computer!

The advanced design of the *Excelis* HD cameras feature software inside the cameras and an external HDMI port allowing users to connect directly to an HD monitor for live/real time viewing, capturing and saving of images to an SD card without being connected to a computer. This on-board software also enables the user to control the camera with a click of the mouse rather than searching for buttons on the camera, making an *Excelis* HD Series camera the ideal choice for teaching, group presentations, or when a computer set-up is simply not an option!



## HDMI ~ 60fps/30fps\* USB2.0 ~ 30fps\*

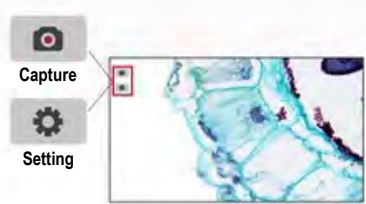
With 60fps HDMI and 30fps USB 2.0 data transfer at 1920x1080 resolution\*, the *Excelis* HD camera is one of the fastest HD 1080p cameras on the market today!

## Fluorescence Imaging\*

The ultra-high signal-to-noise ratio sensor allows users to set exposure time from 1ms to up to 10 seconds and adjust 20 scales of Gain value. And the incredibly efficient 3D noise reduction performance delivers detailed low light images making the *Excelis* HD camera a great choice for fluorescence applications.

\*AU-600-HD and AU-600-HDS cameras only. HDMI 60fps live imaging/30fps HDMI image transfer.

# Built-in Camera Functions Get You Up & Running *FAST!*



## Simple Software Interface

Less is definitely more with the built-in camera software — only two icons appear on the start screen — one for capturing an image, the other for menu settings.

## Auto or Manual Exposure Time Capability

With the *Excelis* HD cameras users are in full control of the exposure and gain. Use the Auto Exposure function or set the exposure time from 1ms up to 10 seconds and adjust 20 scales of Gain value.

## 3D Noise Reduction

Longer exposure times increase image noise. The integrated 3D noise reduction function keeps the *Excelis* HD camera image clean and sharp!

## 1080P Video Recording

Just click on the video record icon to start recording 1080P videos at 30fps. The recorded video files will be saved directly to the high speed SD card. Users can also playback videos directly from the SD card.



## Magnify (ROI), Rotate & Flip Images With Ease!

Image operation buttons on the right side of the screen allow users to select a ROI (Region of Interest), as well as flip or rotate an image. The ROI feature of the *Excelis* HD cameras help to get more image details by magnifying the image.



## Side X Side Image Comparison!

The image comparison function allows you to choose one image, move the image position, or select the ROI area to compare with the live image.



## Browse Captured Images & Video

Easily browse images on the SD card, zoom in on images, or delete them. You can even playback video files saved to the SD card from the Browse feature.

## On Board Imaging Tools



With the *Excelis* HD camera, no driver is needed when you connect to a PC or Mac via the USB 2.0 camera port.

With our Quick Start Guide, you'll be up & running in no time with the on-board software that features basic imaging tools:



Flip Horizontally



Flip Vertically



Zoom in



Zoom Out



Crop



Divison Cancel



Insert a Crossline



Compare Images



Browse Images



## Feature-Rich CaptaVision Software Gives You More!

Included with every *Excelis* HD camera, is our intuitive and feature-enhanced *CaptaVision* software for PC that allows for more image control, analysis, annotation and more!

Get More  
Image Control,  
Analysis,  
Annotation  
& More With  
**CaptaVision**  
PC Imaging  
Software!

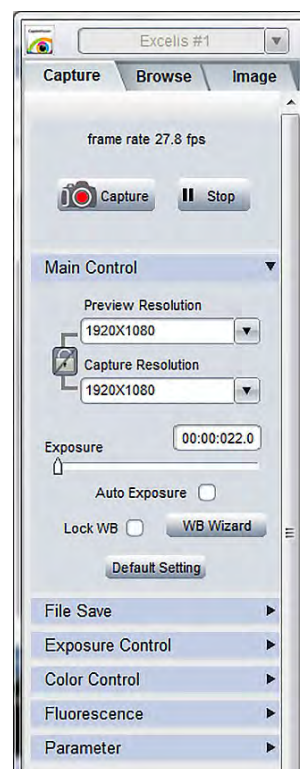
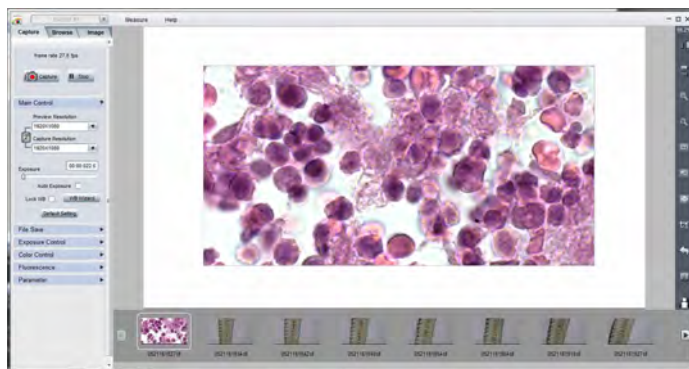
With the *Excelis* HD cameras, no driver is needed when you connect to a PC or Mac via the USB 2.0 camera port.

And, the included *CaptaVision* software for PC puts more image control features in your hands including live and still image measurement, focus stacking, image stitching and more!



### Advanced Camera Control

- **Basic camera settings:** live image resolution, live capture resolution, exposure, white balance, and white balance wizard
- **Acquisition of still images and video with image types:** jpg, bmp, tiff and RAW, and file save destination feature
- **Exposure control:** auto, manual, gain, frame speed and data width
- **Color control:** flat field function
- **Fluorescence settings:** black level, levels (histogram), and capture mode specifically for fluorescence
- **Parameter group:** save parameters for different applications
- **Live image measurement tools:** scale line, calibrate, calibrate table, decimal, measurement data list, layers, lock/unlock, line, parallel, perpendicular, rectangle, 2-points circle, 3-points circle, diameter circle, concentric circle, polygon, arc, angle, point, annotate, cross-ruler
- **Live image shortcut tools:** a special shortcut toolbar on the live image window to process live images quickly
- **Image Management:** The Browse feature displays the file name, capturing time, color depth (bit), picture resolution and image size — *even add comments to any individual image!*
- **Image Processing:** basic captured image functions and more including extended depth of focus, imaging stitching, measuring, labeling (including time/date stamp), HDR (High Dynamic Range) function
- **Fluorescence:** a function used to assign fluorescence images with different colors and combine them together into one image — assign image color by choosing colors from the color palette or according to the dye used



*CaptaVision* software interface is easy to navigate.  
A user manual is included on the software CD.

# Choose Your *Excelis* HD!

## HD Cameras

### CAT# **AU-600-HD**

For those who need speed, live image measurement and fluorescence capability, this model offers fast 60fps (HDMI) and 30fps (USB 2.0), SONY IMX236 sensor, and an 8GB SD card with a sleek white casing.

### CAT# **AU-300-HD Lite**

For the budget-minded, this model offers 30fps (HDMI) and 15fps USB 2.0), Aptina sensor, and an 4GB SD card with a cool gray casing.

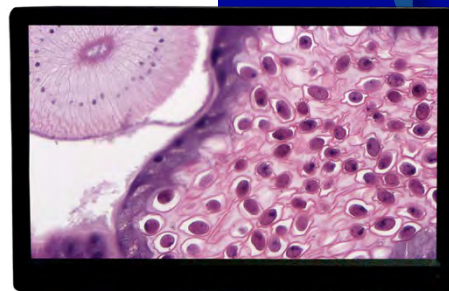
## Complete HD Camera & Monitor Systems!

Our new *Excelis* Camera & Monitor Systems allow users to view and capture images and video directly to the supplied SD card included with the camera — no need for a computer or separate HD monitor!

The 11.6" HD display provides beautiful, crystal-clear image quality and vibrant, true-to-life color with exceptional viewing from all angles.

Available with the AU-600-HD or the AU-300-HD Lite cameras.

### CAT# **AU-600-HDS** or CAT# **AU-300-HDS**



The *Excelis* HD camera is mounted directly to the monitor, saving space. If needed, it can be mounted elsewhere with additional components.

*Excelis* HD Camera & Monitor System shown on a 3001-LED Microscope (microscope sold separately)

*Excelis* HD

# Excelis HD MICROSCOPY CAMERA SERIES

## What's Included:

- Excelis HD Camera
- HDMI Cable
- USB 2.0 Cable
- 12V Power Adapter
- SD Card
- USB 2.0 Mouse
- *CaptaVision* PC Imaging Software
- HDMI Adapter (with AU-600-HDS & AU-300-HDS)
- Y Power Splitter (with AU-600-HDS & AU-300-HDS)
- 11.6" HD Display (with AU-600-HDS & AU-300-HDS)
- Mounting Brackets & Hardware (with AU-600-HDS & AU-300-HDS)



## CAMERA SPECIFICATIONS

Model	AU-600-HD • AU-600-HDS	AU-300-HD • AU-300-HDS
Sensor	SONY IMX236	Aptina MT9P031
Sensor Size	1/2.8", 0.5x C-mount recommended	1/2.5", 0.5x C-mount recommended
Live Resolution	1920 x 1080	1920 x 1080
Frame Rate	HDMI (60fps); USB 2.0 (30fps)	HDMI (30fps); USB 2.0 (15fps)
Image Capture	High Speed SD Card (8GB)	High Speed SD Card (4GB)
Video Capture	HDMI: 1080p, 30fps to SD Card USB 2.0: 1080p, 30fps to PC or Mac	HDMI: 1080p, 15fps to SD Card USB 2.0: 1080p, 15fps to PC or Mac
Exposure Time	0.001sec—10.0 sec	0.001sec—10.0 sec
White Balance	Auto	Auto
Settings	Gain, Gamma, Saturation, Contraction	Gain, Gamma, Saturation, Contraction
Built-in Software	Cloud 1.0 (With live image measurement)	Cloud 1.0
PC Imaging Software	<i>CaptaVision</i> Imaging Software (for PC only; Mac OS not supported) <b>Advanced Camera Controls:</b> live/still image measurement and annotation; flat field correction; extended depth of focus (focus stacking); image stitching; fluorescence image settings; fluorescence multi-color channel merge; HDR (High Dynamic Range) function <b>Image Types:</b> JPEG, BMP, TIFF and RAW	<i>CaptaVision</i> Imaging Software (for PC only; Mac OS not supported) <b>Advanced Camera Controls:</b> still image measurement and annotation; flat field correction; extended depth of focus (focus stacking); image stitching; HDR (High Dynamic Range) function <b>Image Types:</b> JPEG, BMP, TIFF and RAW
Output Modes	Mode 1: USB 2.0 / Mode 2: HDMI	Mode 1: USB 2.0 / Mode 2: HDMI
System Compatibility	Windows XP, Vista, 7, 8, and 10 (32 or 64 bit) Mac OSX (for image transfer to Mac OSX only) <b>System Requirements:</b> Intel processor (Core 2 Duo or higher); 2GB memory or more; USB 2.0 Hi-Speed port	Windows XP, Vista, 7, 8, and 10 (32 or 64 bit) Mac OSX (for image transfer to Mac OSX only) <b>System Requirements:</b> Intel processor (Core 2 Duo or higher); 2GB memory or more; USB 2.0 Hi-Speed port
Power Supply	DC12V/1A	DC12V/1A

## MONITOR SPECIFICATIONS

Monitor	Mountable 11.6" HD Display Contrast: 1000:1; Dot Pitch: 0.1338mm	Mountable 11.6" HD Display Contrast: 1000:1; Dot Pitch: 0.1338mm
Input Modes	AC power, HDMI	AC power, HDMI

Design, features and specifications are subject to change without notice.

### ISO 9001

Design and production adheres to ISO9001 international quality standard.

### ISO 14001

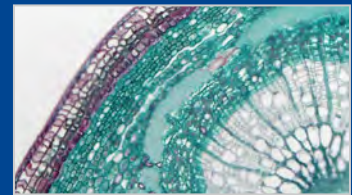
Design and production meets the requirements of international standard ISO 14001 for environmental management.

CE RoHS



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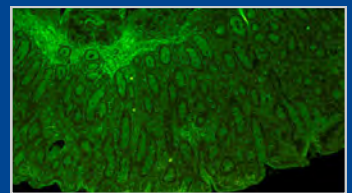
Perfect color reproduction



Manipulate live images without lag



Motion trails are recorded in fast speed and intact form



Rapid captures of low light images



Full HD resolution allows clear and fast live image inspection



Dual, live video streaming from a PC to any HDMI imaging device