

# Excelis

HD MICROSCOPY CAMERAS

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

The *Excelis* 600 HD cameras are full featured HD cameras offering 60fps in video preview with unrivaled color fidelity and on-board image capturing capability.



## Connect Your Way!

*Excelis'* unique system architecture enables it to offer **simultaneous live image output** to an HD monitor and to a computer via USB connection. 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\*

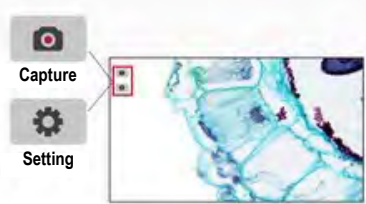
With 60fps HDMI and 30fps USB 2.0 data transfer at 1920x1080 resolution\*, the *Excelis* HD camera is one of the fastest HD 1080p cameras on the market today!

## 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.

\*HDMI 60fps live viewing / 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

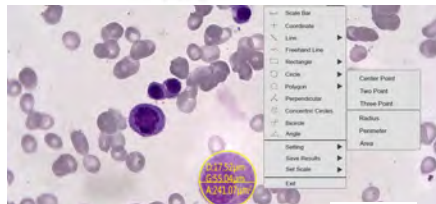
Just click on the video record icon to start recording 1080P videos at 30fps. The recorded video files will be saved directly to the high speed SD card. Users can also playback videos directly from the SD card.



Video

## Measurement Tools To Achieve Micron-level Precision Measurement!

With the new on-board firmware, *Excelis* 600-HD Series cameras now allow for precision measurements to be performed and saved on the HD view. A variety of measuring tools can be utilized to measure line, distance, angle, length, circumference and area to 1/100 microns.



Measurement

## 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:

- ★  Calibration
-  Flip Horizontally
-  Flip Vertically
-  Zoom In
-  Zoom Out
- ★  Mask
-  Browser
-  Comparison Browser
-  Division Cancel
-  Crossline
- ★  Ruler

★ This feature is available only on *AU-600-HD* cameras purchased after July 1, 2017 and with SN# ending with "M" or "MC"(i.e., 1707001-M).





## Feature-Rich *CaptaVision+* Software Gives You More!

Included with every *Excelis* HD 600 Series 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!

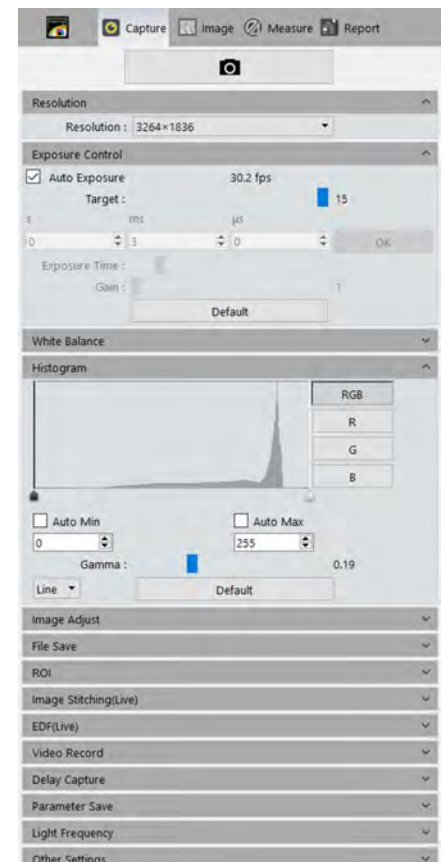
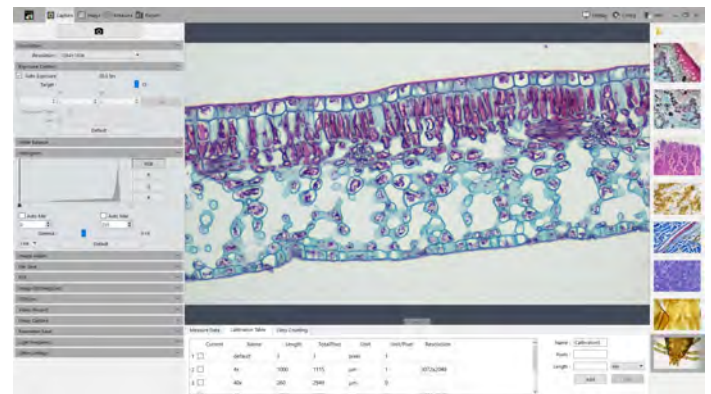
With the *Excelis* HD cameras,  
no driver is needed  
when you connect to  
a PC or Mac via the  
USB 2.0 camera port.

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 and capture image resolution, exposure control, white balance, and time-lapse and video capture
- **Exposure control:** auto exposure, target, manual exposure time, gain
- **Image adjust:** flatfield correction, saturation, contrast sharpness
- **Image stitching (live):** low, medium, high quality live image stitching
- **EDF (live):** low, medium, high quality live extended depth of focus imaging
- **Parameter save:** save imaging settings for different Applications
- **Measurement tools:** live and saved images, calibration, measurement layers, configurable properties, scale, ruler, grid, line parallel, perpendicular, rectangle, 2-points circle, 3-points circle, diameter circle, concentric circle, polygon, arc, angle, point, class counting, annotate
- **Image management:** folder structure, captured images displayed in gallery
- **Image processing:** basic image adjustment functions such as brightness, gamma, contrast, saturation, sharpen and more including extended depth of focus, image stitching, HDR (High Dynamic Range), binarization, color extraction
- **Fluorescence:** capture in gray scale, pseudocolor images, create color composites



*CaptaVision+* software interface is easy to navigate.  
A user manual is included on the flash drive provided.

# Choose Your *Excelis* HD!

## 600 HD Camera

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 black casing.

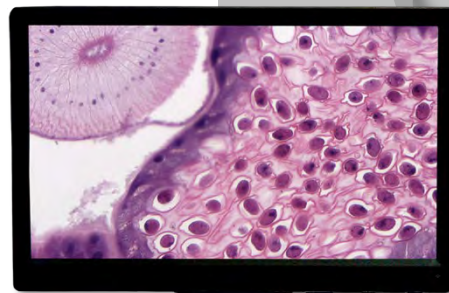
*See complete specifications on back cover.*

## Complete 600 HD Camera & Monitor System!

Our *Excelis* Camera & Monitor System allows 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.

CAT# **AU-600-HDS**



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

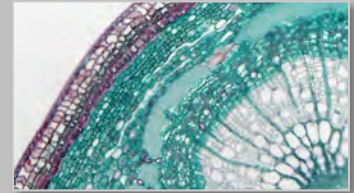
*Excelis HD Camera & Monitor System shown on a 3001-LED Microscope (microscope sold separately)*

*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 Cable With L Adapter (with AU-600-HDS)
- Y Power Splitter (with AU-600-HDS)
- 11.6" HD Display (with AU-600-HDS)
- Mounting Hardware (with AU-600-HDS)



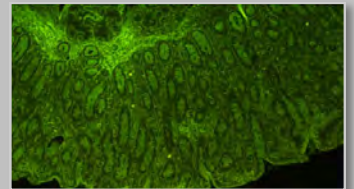
Perfect color reproduction



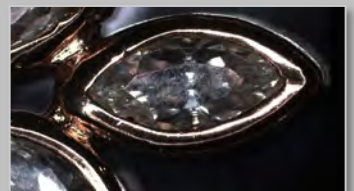
Manipulate live images without lag



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

## CAMERA SPECIFICATIONS

Model	AU-600-HD • AU-600-HDS
Sensor	SONY IMX236
Sensor Size	1/2.8" , 0.5x C-mount recommended
Live Resolution	1920 x 1080
Static Resolution	3264 x 1836
Frame Rate	HDMI (60fps); USB 2.0 (30fps)
Image Capture	6.0MP / High Speed SD Card (8GB)
Video Capture	HDMI: 1080p, 30fps to SD Card USB 2.0: 1080p, 30fps to PC or Mac
Exposure Time	0.001sec—10.0 sec
White Balance	Auto
Settings	Gain, Gamma, Saturation, Contraction
Built-in Software	Cloud 1.0 (With live image measurement)
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, PNG, TIFF and DICOM
Output Modes	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
Power Supply	DC12V/1A

## MONITOR SPECIFICATIONS

Monitor	Mountable 11.6" HD Display Contrast: 1000:1; Dot Pitch: .1338mm
Input Modes	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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