

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





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*

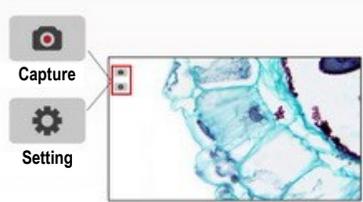
With 60fps HDMI and 30fps USB 2.0 data transfer at 1920x1080 resolution*, the *Excelis* HD camera is one of the fastest HD 1080p cameras on the market today!

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

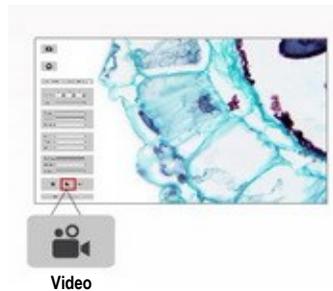
With the *Excelis* HD cameras users are in full control of the exposure and gain. Use the Auto Exposure function or set the exposure time from 1ms up to 10 seconds and adjust 20 scales of Gain value.

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.



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" (i.e., 1707001-M).



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!

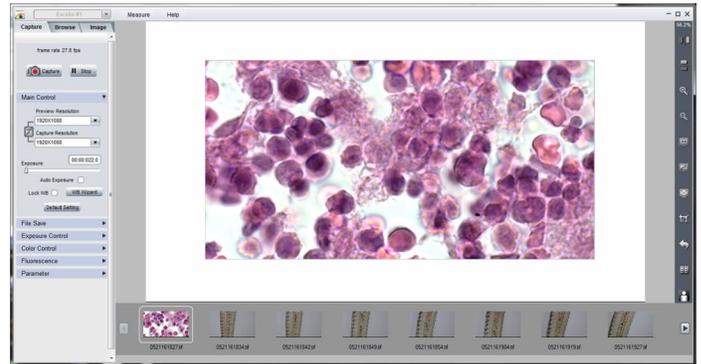


Feature-Rich *CaptaVision* Software Gives You More!

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!

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 black 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!

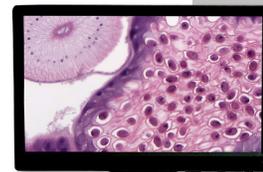
The 11.6" HD display provides beautiful, crystal-clear image quality and vibrant, true-to-life color with exceptional viewing from all angles.

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 above on a 3001-LED Microscope and below on a Luxo Stereo Microscope (microscopes sold separately)

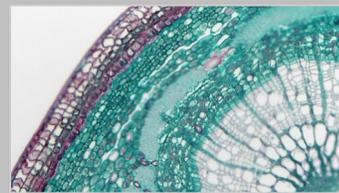


Excelis HD

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)



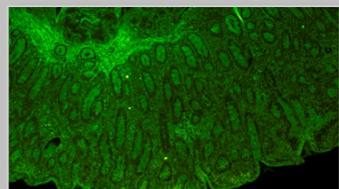
Perfect color reproduction



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 | 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 | CaptaVision Imaging Software (for PC only; Mac OS not supported) Advanced Camera Controls: 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 Image Types: JPEG, BMP, TIFF and RAW | CaptaVision Imaging Software (for PC only; Mac OS not supported) Advanced Camera Controls: still image measurement and annotation; flat field correction; extended depth of focus (focus stacking); image stitching; HDR (High Dynamic Range) function Image Types: 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) System Requirements: 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) System Requirements: 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: .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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