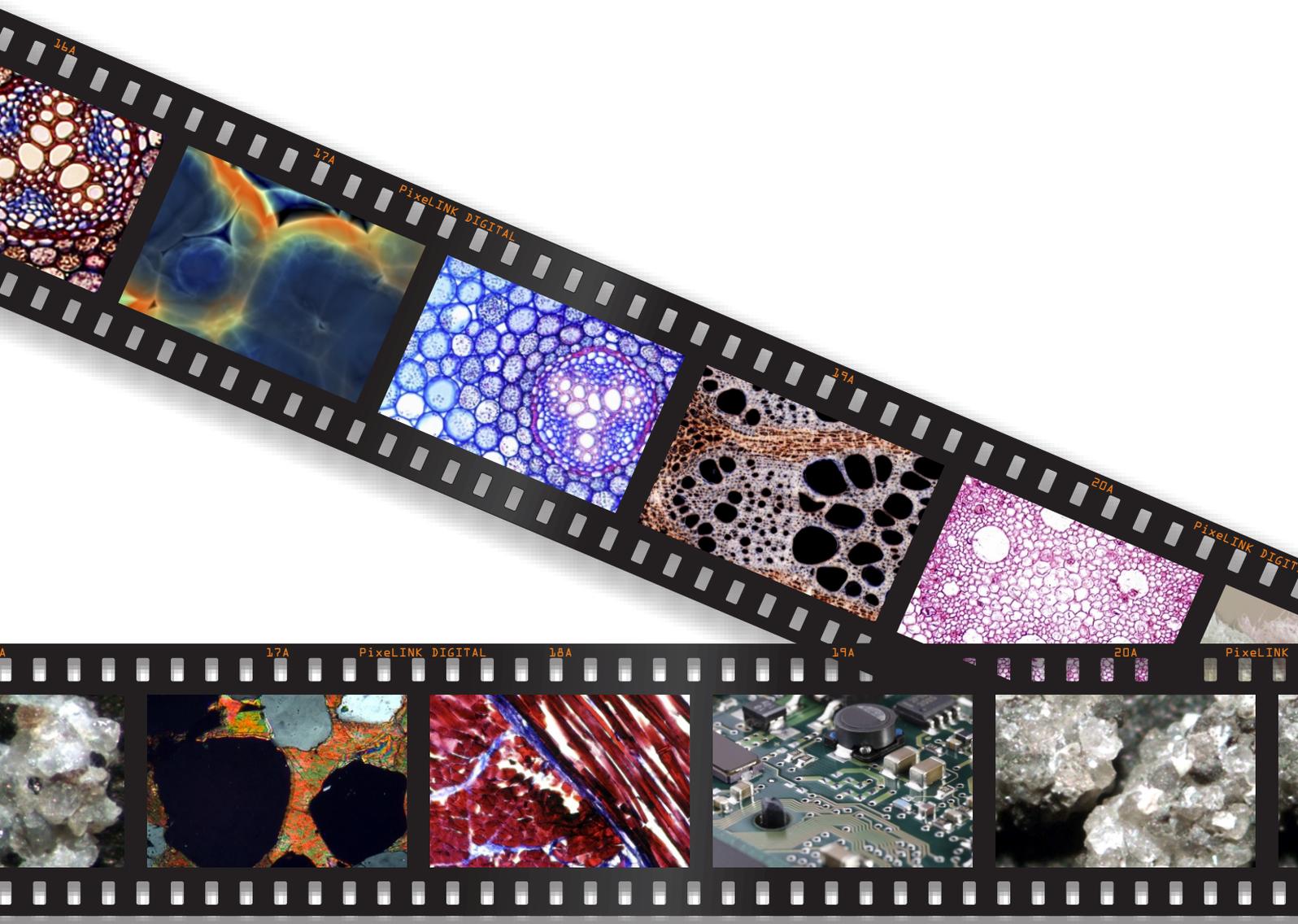




PixelINK® Digital-Microscopy Camera Solutions



**SEE, CAPTURE, MEASURE**



## PixelINK® for Microscopy Applications

PixelINK® will work with you to choose and integrate the optimal camera for your life science project. Ideal for use in any laboratory setting, PixelINK® cameras let you capture high-quality life sciences imagery with your existing microscope equipment. Our microscopy cameras and associated software are designed to offer consistent, high-quality image acquisition and performance.

PixelINK® also offers unparalleled technical support and integration software to help you get your project up and running as quickly as possible. Our drivers and software for your host computer enable advanced camera functionality.



### CAMERA FEATURES

- Exposure Time
- Gain
- Frame Rate
- Spot White Balance (CMOS only)
- Auto White Balance
- Pixel Addressing
- Gamma
- Saturation
- Color Temperature
- Time Lapse Capture
- Image Flip
- Image Rotate
- ROI (CMOS Only)
- Capture Full Resolution (CMOS Only)
- Pixel Format

**Bright to Moderate  
Illumination**

**PL-B700 CMOS Cameras  
PL-E430 CMOS Cameras**

**Bright to Low  
Illumination  
Moderate Fluorescence**

**PL-B950 CCD Cameras**

## COST EFFECTIVE CMOS USB 2.0

1.0 to 5.0 Megapixel

Camera Specifications	PL-E421M	PL-E421C	PL-E422C	PL-E423C	PL-E424C	PL-E425C
Color / Mono	Mono	Color	Color	Color	Color	Color
Resolution	1280 x 1024	1280 x 1024	1600 x 1200	2048 x 1536	2400 x 1800	2592 x 1944
Mega-Pixel	1.3	1.3	1.9	3.0	4.1	5.0
Frame Rate at Full Res.	30*	28*	20*	12*	8*	7*
Lens Format	C 1/2"	C 1/3"	C 1/2.5"	C1/2"	C 1/2.5"	C 1/2.5"
Pixel Pitch	5.2 $\mu$ m	3.2 $\mu$ m	3.2 $\mu$ m	3.2 $\mu$ m	2.2 $\mu$ m	2.2 $\mu$ m
Sensor Diagonal	8.52 mm	5.25 mm	6.40 mm	8.19 mm	6.60 mm	7.13 mm
Bit Depth	8 or 10					
Dynamic Range	60 dB	60 dB	60 dB	60 dB	59.2 dB	59.2 dB
Shutter Type	Rolling	Rolling	Rolling	Rolling	Rolling	Rolling
Trigger	S/W	S/W	S/W	S/W	S/W	S/W

- Highlights**
- 1 - 5 megapixel resolutions
  - Dynamic region of interest
  - Fast frame Rates

## CMOS FIREWIRE & USB 2.0

1.3 to 6.6 Megapixel

Camera Specifications	PL-B621M	PL-B681C	PL-B623C	PL-B625M	PL-B625C	PL-B686M	PL-B686C
Color / Mono	Mono	Color	Color	Mono	Color	Mono	Color
Resolution	1280 x 1024	1280 x 1024	2048 x 1536	2592 x 1944	2592 x 1944	3000 x 2208	3000 x 2208
Mega-Pixel	1.3	1.3	3.0	5.0	5.0	6.6	6.6
Frame Rate at Full Res.	30*	27*	12*	7*	7*	4*	4*
Lens Format	C 1/2"	C 2/3"	C 1/2"	C 1/2.5"	C 1/2.5"	C 1"	C 1"
Pixel Pitch	5.2 $\mu$ m	6.7 $\mu$ m	3.2 $\mu$ m	2.2 $\mu$ m	2.2 $\mu$ m	3.5 $\mu$ m	3.5 $\mu$ m
Sensor Diagonal	8.52 mm	8.52 mm	8.19 mm	11.01 mm	11.01 mm	13.1 mm	13.1 mm
Bit Depth	8 or 10	8 or 10	8 or 10	8 or 12	8 or 12	8 or 10	8 or 10
Dynamic Range	60 dB	54.6 dB	60 dB	60 dB	59.2 dB	60 dB	60 dB
Shutter Type	Rolling	Global	Rolling	Rolling	Rolling	Rolling	Rolling
Trigger	S/W						

- Highlights**
- 1 - 6.6 megapixel resolutions
  - Dynamic region of interest
  - Fast Frame Rates

## CCD FIREWIRE & USB 2.0

1.4 and 2.0 Megapixel

Camera Specifications	PL-B871M	PL-B871C	PL-B872M	PL-B872C	PL-B873M	PL-B873C
Color / Mono	Mono	Color	Mono	Color	Mono	Color
Resolution	1392 x 1040	1392 x 1040	1392 x 1040	1392 x 1040	1600 x 1200	1600 x 1200
Mega-Pixel	1.4	1.4	1.4	1.4	1.4	2.0
Frame Rate at Full Res.	10*	10*	15*	15*	15*	15*
Lens Format	C 1/2"	C 1/2"	C 2/3"	C 2/3"	C 1/1.8"	C 1/1.8"
Pixel Pitch	4.65 $\mu$ m	4.65 $\mu$ m	6.45 $\mu$ m	6.45 $\mu$ m	4.4 $\mu$ m	4.4 $\mu$ m
Sensor Diagonal	7.96 mm	7.96 mm	11.2 mm	11.2 mm	8.8 mm	8.8 mm
Bit Depth	8 or 12	8 or 12	8 or 12	8 or 12	8 or 12	8 or 12
Dynamic Range	60.9 dB	61.9 dB	61.7 dB	61.0 dB	47.5 dB	48.2 dB
Shutter Type	ILT	ILT	ILT	ILT	ILT	ILT
Trigger	S/W	S/W	S/W	S/W	S/W	S/W

- Highlights**
- 1 and 2 megapixel resolutions
  - High Dynamic Range
  - Low Noise Imaging

## Common Applications

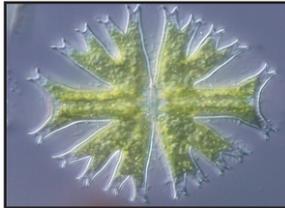
Machine Vision applications have a broad range of uses, and the illustrations above only provide a small sample of the available deployments for cameras in digital vision applications. Our goal is to successfully integrate a PixelINK<sup>®</sup> camera into your project.



### Brightfield

Monitor for defects in material

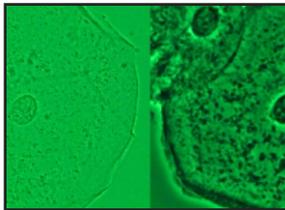
Recommended Camera:  
PL-B776



### Differential Interface Contrast

Monitor for print defects and color consistency

Recommended Camera:  
PL-B776



### Phase Contrast

Traffic surveillance and toll collection

Recommended Camera:  
PL-E530



### PCB and Semicon

Assembly and quality inspection of electronics

Recommended Camera:  
PL-B771

### Petrology

Stress testing materials and breaking points

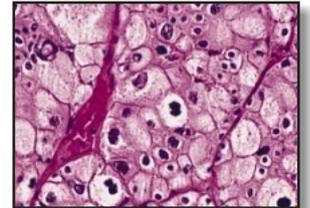
Recommended Camera:  
PL-E530



### Pathology

Security, access control and identification

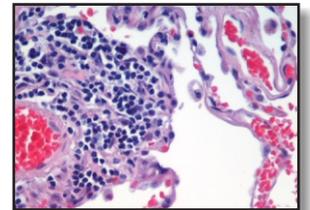
Recommended Camera:  
PL-B778



### Histology

Control for packaging and verification of content

Recommended Camera:  
PL-B950.



### Live Cell Imaging

Minimize waste and reduce errors

Recommended Camera:  
PL-B781



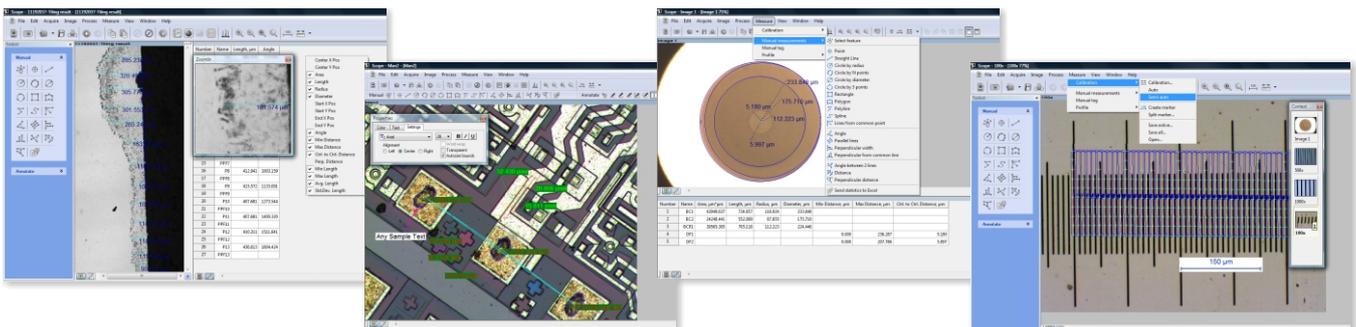
# MICROSCOPY SOFTWARE Features

## PixelINK µScope Essentials and µScope

PixelINK<sup>®</sup> µScope Essentials, and the PL-E400 camera becomes a highly productive image capture tool for microscopy users on a budget.

PixelINK<sup>®</sup> µScope software package, the PL-B600 & PL-B800 cameras becomes a highly productive, **professional** image capture tool for microscopy. PixelINK<sup>®</sup> µScope includes annotation and measurement tools and allows users to manage and archive captured images. Users can also export captured image data to a Microsoft Excel spreadsheet do semi/automatic calibrations, and live preview overlays.

Software Features	µScope Essentials	µScope
PixelINK <sup>®</sup> api control	✓	✓
time lapse capture and movie file production - crosshair on live preview	✓	✓
save in multiple image file formats - jpg, jpeg, tif, tiff, bmp, gif, pcx, tga, mpg, mpeg, avi, mov, img, rpt, txt...	✓	✓
overlay - crosshair, grid mask, image, marker	✓	✓
image- mode change, clone, crop, roi, resize, rotate	✓	✓
multiple roi. shapes & copy, paste, crop roi		✓
grayscale, rgb, hsb, yuv	✓	✓
image sequence control	✓	✓
zoom control - 100% to 1600% and fit to window options	✓	✓
annotation - line, arrow, polyline, spline, rectangle, ellipse, text	✓	✓
image editing: undo, redo, copy, paste, paste new, delete, delete all, annotate, image information	✓	✓
image processing - manual brightness, contrast, gamma, background subtraction, histogram, clone, crop, roi, resize, rotate, split, image mode change, grayscale, rgb, hsb, yuv pseudo color view		✓
multiple window configuration options	✓	✓
manual measurement tools - 3-point circle functionality, npoint circle measurement functionality, parallel line distance measurement, perpendicular distance measurement and object distance measurement. In addition, zoom-in window	✓	✓
export to excel <sup>®</sup> - images with measurement, calibration, annotations, measurement data, statistics, and chart	✓	✓
report generator - create, insert images and ole objects	✓	✓
auto and semi auto calibration		✓
manual calibration	✓	✓
measurement parameters - area, max length, line length, center x and y, angle	✓	✓
measurement data	✓	✓
profile - straight line, polyline, parallel line, select and change		✓
line profiling - single, multiple, parallel and polyline commands provide gray/red/green/blue intensity values for specific lines within an image. the profile data of each pixel on the line can be exported to Microsoft <sup>®</sup> Excel		✓
calibration marker (scale bar) can be placed on the live preview image, and burned in automatically	✓	✓
Live Measurement and Overlay Settings: perform measurements on the live preview image, using the crosshair or grid masks to center and count. The grid masks include calibration data	✓	✓
dynamic user interface	✓	✓





## About PixelINK®

PixelINK® is a global provider of industrial cameras for the machine vision and life sciences markets. Since 1992, PixelINK® has designed, manufactured and supported the hardware and software requirements of machine vision, OEM and microscopy customers around the world. Offering unmatched customer support and service, PixelINK® designs and manufactures reliable industrial cameras for any machine vision or life science project.

Based in Ottawa, Canada, PixelINK® combines reliable camera hardware with industry-leading software to help OEMs and integrators address new and complex machine vision projects.

Our mission is to become the leading provider of digital cameras to the machine vision market. To accomplish these goals, we will offer a range of high-quality, reliable industrial cameras at an affordable price while providing unmatched customer service and support.

## Technical Support

We offer unparalleled technical support and related services to help customers get their industrial imaging projects up and running as quickly as possible.

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Proudly Canadian



For a full detailed line of PixelINK® cameras or to speak to us about your unique requirements please visit us at:

**[WWW.PIXELINK.COM](http://WWW.PIXELINK.COM)**