

# Pro 150ESM

## 1.5 Million Pixel MONOCHROME Digital Camera System

Windows® & Mac® OS



**1.5 Million Pixels** (0 Defect CCD)  
**Excellent Sensitivity, 0.01lux**  
**High Signal-to-Noise Ratio 62dB**  
**High Dynamic Range 60dB**  
**Up to 15fps Viewfinder @ 640x480**  
**Long Integration Exposure Up to 64min**  
**Live Specimen Capture**

### Pro 150ESM - Monochrome Digital Camera System with COOLED CCD

The Pro 150ESM offer high resolution and high sensitivity in monochrome for low light applications in microscopy. This is achieved by a 1/2" B/W Sony® CCD, and Pixera's sophisticated hardware and image processing technology.

Other features include long integration exposure, high dynamic range, high signal-to-noise ratio and a very easy to learn interface with simple yet powerful controls. The system include everything you need to get started, Camera System, PCI Interface card, Cable, Software, Manual and free technical support.

#### Included

- Camera System
- PCI Interface Card
- 10ft (3m) Cable
- Software
- Manual
- Customer Support
- Free Driver Downloads

#### Options

In addition to the camera system, Pixera offer two practical accessories , hand switch Penguin/Pro-HS and foot switch Penguin/Pro-FS for improved capture control. The 4-function hand switch allows the user to capture images without moving attention away from the microscope, and the foot switch allow for hands free image capture so that a users complete attention including hands can be on microscope operation. Both accessories connects via a mini DIN to directly to the Penguin PCI card. See a quick description and pictures below of these two products and/or visit the product pages for each item on Pixera's web site. See also other options such as Penguin/Pro-CS camera switch for use with two cameras.

#### Penguin/Pro-HS

The 4-function Penguin/Pro-FS Hand Switch allow the user to remotely capture images without moving attention away from the microscope. Connects directly to Penguin PCI card, with 6ft (1.8m) Cable.



#### Penguin/Pro-FS

The Penguin/Pro-FS Foot Switch allows for hands free image capture while focusing your attention on microscope operation. Connects directly to Penguin PCI card, with 10ft (3m) Cable.



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#### Camera System Features

- Resolutions: 1392x1040, 640x480
- Image Sensor: 1/2", 0 defect, 1.5M pixel Mono CCD
- Pixel Size: 4.65µmx4.65µm
- Sensitivity: 0.01lux
- S/N Ratio: 62dB
- Dynamic Range: 60dB
- Data Acquisition: 8-bits or 16-bits (65,536 gray levels)
- Image Processing Speed\*: 5-20sec
- Viewfinder\*\*: 15 fps @ 640 x 480 pixels
- Long Integration Exposure, up to 64 min\*\*\*
- Sensitivity: ISO 200/400/800/1600
- Save & Preload Prior Image Capture Settings
- Spot Detection (Variable size and location)

#### Penguin/Pro Application Suite

Windows®:

- Pixera Viewfinder
  - Pixera Studio
  - TWAIN Viewfinder
- Mac® OS:
- Pixera Studio
  - Adobe® Photoshop® Plug-In

**Options** See separate datasheets for these items.

- Penguin/Pro-HS: Hand Switch (Remote Image Capture)
- Penguin/Pro-FS: Foot Switch (Hands Free Image Capture)
- Penguin/Pro-CS: Camera Switch
- Penguin/Pro-LC: L-Shaped Connector

#### Image Formats

- BMP, JPEG, TIFF, PICT, Flash Pix

#### System Requirements

- Windows® 95/98/Me/NT/2000/XP
- Mac® OS 9.0-9.2.x
- Interface: PCI slot for desktop PC
- CPU (Windows®): 300MHz or faster
- CPU (Mac® OS): Blue/White G3 or later
- RAM (Windows®): 128MB or more
- RAM (Mac® OS): 256MB or more
- HDD: 100MB of free space or more
- Monitor: 1024 x 768 pixels or more
- Color: 16 bits. 24bits or more recommended

\* Including the processing time to display

\*\* Maximum frame rate is system dependent

\*\*\* Maximum exposure time