

photometrics<sup>®</sup>  
**CoolSNAP™**  
**MYO**

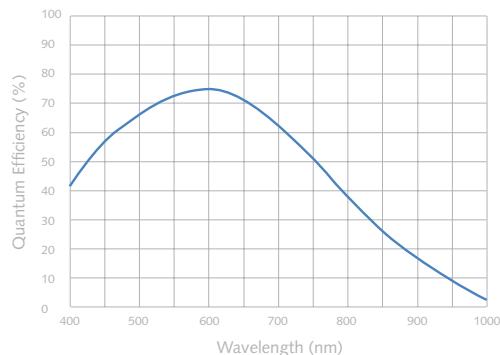
1940 x 1460 imaging array  
 4.54 x 4.54  $\mu\text{m}$  pixels

The CoolSNAP MYO is a high resolution, high sensitivity camera for moderate to low-light life science applications. This unique cooled CCD provides 4.54 $\mu\text{m}$  pixel pitch, 14-bit digitization at 20MHz, enabling high spatial resolution and an optimized frame rate for live cell imaging. Its 2.8 Megapixels and a high Quantum Efficiency enables sensitive imaging with the option for binning for a higher dynamic range as well as increased signal-to-noise performance – all while providing an ideal pixel pitch for microscopy.

**Primary applications**

**Fixed Cell Imaging**  
**Immunofluorescence**  
**Cell Trafficking**  
**FRET, FRAP, FISH**  
**Near-Infrared DIC**  
**Calcium/Ion Imaging**

| Features  | Benefits   |
|---|--|
| 1940 x 1460 imaging array<br>4.54 x 4.54 $\mu\text{m}$ pixels | High spatial resolution for imaging finer details  |
| High Quantum Efficiency                                       | ~75% peak quantum efficiency delivers high sensitivity   |
| 20 MHz read out   | High Speed readout to maximize temporal resolution   |
| USB 2.0 Interface   | Easy connectivity and setup  |
| Binning   | Increase frame rate and signal-to-noise performance  |
| 14-bit digitization   | Quantify bright and dim signals in the same image  |
| Thermoelectric cooling  | Stabilized cooling produces a low dark current for long exposures                                |
| Fan Disable Option  | Disable the fan for vibration-sensitive applications   |
| C-mount   | Easily attaches to microscopes, standard lenses, or optical equipment                            |
| Acquisition software  | Captures, analyzes, and saves high-resolution images   |
| PVCam® Driver   | Support in a wide range of third party software packages<br>Supported in Windows 7 64-bit/32-bit |



| Binning      | Region      |           |           |
|--------------|-------------|-----------|-----------|
|              | 1940 x 1460 | 970 x 730 | 646 x 486 |
| <b>1 x 1</b> | 6.3         | 11.8      | 16.8      |
| <b>2 x 2</b> | 11.6        | 20.8      | 28.4      |
| <b>3 x 3</b> | 16.2        | 27.8      | 36.5      |
| <b>4 x 4</b> | 20.1        | 33.2      | 42.6      |

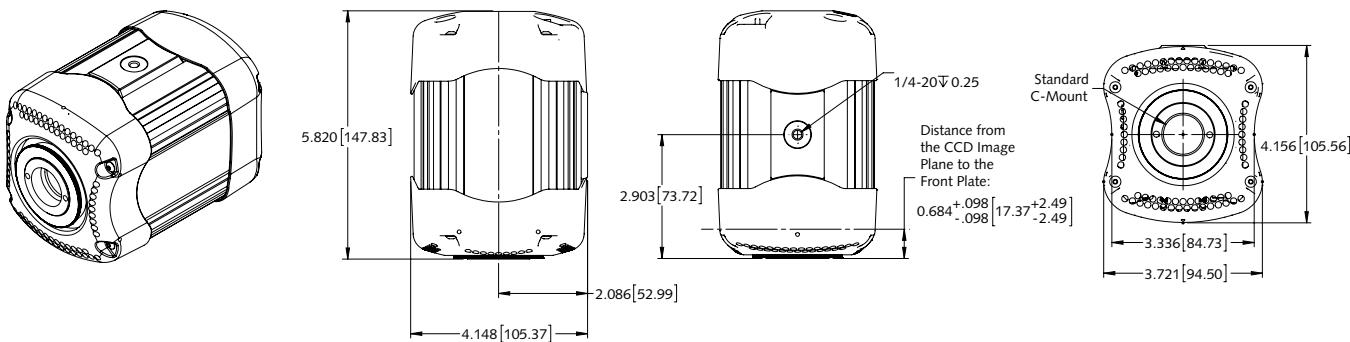
(Frames per second)

Note: Frame rates are measured at 20 MHz with 0-millisecond exposure times.

### Specifications

|                       |  |
|-----------------------|--|
| CCD Sensor            | Sony® ICX-674 Interline CCD  |
| CCD Format            | 1940x1460 imaging array<br>4.54x4.54 µm pixels<br>8.8 x 6.6 mm imaging area (11mm diagonal, 2/3" format) |
| Linear Full-Well      | 12,000e-   |
| Read Noise            | 5.5e- @ 20MHz<br>4.5e- @ 10MHz<br>3.5e- @ 1.25MHz  |
| Nonlinearity          | <1%  |
| Digitization          | 20MHz, 10MHz, 1.25MHz  |
| Cooling               | 0°C  |
| Dark Current          | 0.005 e-/pixel/second @ 0°C  |
| Operating Environment | 0 to 30°C ambient, 0-80% relative humidity non-condensing  |
| Triggering            | Trigger First Mode<br>Strobe Mode<br>Bulb Mode   |
| Power Requirements    | 5V DC, 4A Maximum  |

Note: Specifications are typical and subject to change.



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