

# ROLERA™ bolt

## Video Rate CMOS camera for High Quality Documentation

Introducing the Rolera Bolt™ CMOS camera from QImaging.

As a cost-effective solution, the Rolera Bolt is designed to meet the imaging requirements for a diverse set of applications ranging from IR-DIC to whole organism motility studies including fluorescence documentation of *C. elegans* and *Drosophila* larvae. Capable of streaming at 30 full frames per second with 1.3 mega-pixel resolution and 3e-read noise, the Rolera Bolt is perfect for tracking dynamic events with detailed spatial and temporal resolution.

The USB 2.0 digital interface allows easy installation with a single cable for both power and data communication and eliminates the need for expensive framegrabbers or an external power supply. The compact design makes it easy to mount and transfer the camera between microscopes and labs providing the perfect imaging workhorse.

The Rolera Bolt is compatible with many popular imaging applications and includes the QCapture Software for Windows which offers real time image preview and capture. A Software Development Kit (SDK) is also available for interfacing with custom software. As with every QImaging camera, the Rolera Bolt is protected with the unsurpassed Two Year Warranty.

## Video Rate CMOS Microscopy Camera



Introducing **Pixel-Freeze Technology™** that reduces dark current to nearly undetectable levels.



### features

### benefits

High Quantum Efficiency	<ul style="list-style-type: none"> <li>Good sensitivity even under fluorescence imaging conditions</li> </ul>
High-Speed Readout	<ul style="list-style-type: none"> <li>Previewing &amp; focusing in real time</li> <li>30fps full resolution</li> <li>60fps with 500x500 ROI</li> <li>Ideal for automated imaging applications</li> </ul>
Low-Noise	<ul style="list-style-type: none"> <li>Quantitation &amp; imaging of low light levels</li> </ul>
12 Bit Readout	<ul style="list-style-type: none"> <li>More than 4,000 grey levels per pixel</li> </ul>
USB 2.0	<ul style="list-style-type: none"> <li>Simple connectivity</li> <li>Ease of use &amp; installation</li> <li>Portability with laptop computer</li> <li>Single-cable operation (no external power supply or control unit)</li> </ul>
Extensive Application Software Support	<ul style="list-style-type: none"> <li>Grows with your imaging needs and requirements</li> <li>Choose from a large selection of life science &amp; industrial software for microscopy, machine vision, &amp; video-streaming functions</li> </ul>
Dark Current	<ul style="list-style-type: none"> <li>Pixel-Freeze Technology™ minimizes dark current through careful electronic design</li> </ul>

# Rolera Bolt Specifications

## CMOS sensor

Light-Sensitive Pixels	1280 x 1024
Exposure/Integration Control	30µs to 1.9 sec
Sensor Type	Sony® IMX035 CMOS
Pixel Size	3.63µm x 3.63µm
Linear Full Well	17,000e-
Read Noise	3e-
Dark Current	NA - Pixel-Freeze Technology™
Digital Output	8 bits / 12 bits
Readout Frequency	24MHz
Frame Rate	30fps full resolution

## camera

Computer Platforms/ Operating Systems	Windows 7 (64/32 bit), Windows XP (32 bit) Refer to the QImaging website for the most recent list of minimum computer requirements
Digital Interface	USB 2.0
Gain Control	1x to 14x
Optical Interface	<ul style="list-style-type: none"> <li>▪ 1X: High Resolution Imaging</li> <li>▪ 1/3" - C-mount optical format</li> </ul>
Threadmount	1/4" - 20 mount
Power Requirements	<ul style="list-style-type: none"> <li>▪ 2.5W at 5 volts</li> <li>▪ Supply through USB Interface (External supply required for Laptops)</li> </ul>
Weight	540g
Warranty	2 years (Additional +5 year option available)
Operating Environment	0 to 50°C (32 to 122°F)
Storage Temperature	-10 to 60°C
Humidity	Less than 80% non-condensing at 35°C (95°F)

## applications

- DIC, Phase-Contrast, Brightfield and Darkfield Microscopy
- Whole Organism Motility Imaging (C. Elegans, Drosophila, Amoebas, etc.)
- Video Rate Fluorescence Documentation
- Semiconductor Surface Inspection
- Metallurgical Microscopy
- Failure Analysis

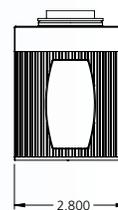
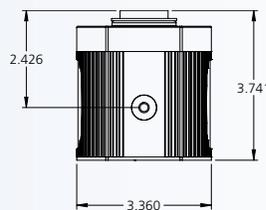
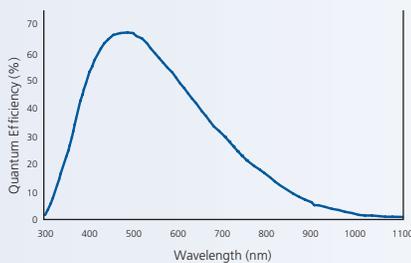
## included

- **Rolera Bolt CMOS**  
Model: 0I-ROL-BOLT-M-12 (monochrome, 12-bit)
- USB 2.0 cable
- QCapture software for PC
- Access to SDK
- Limited Warranty

## camera options

- 0.5x Coupler for Nyquist Sampling with 60x Objective  
Model: 0I-ROL-BOLT-CPLR-LEICA  
Model: 0I-ROL-BOLT-CPLR-OLYMPUS  
Model: 0I-ROL-BOLT-CPLR-NIKON  
Model: 0I-ROL-BOLT-CPLR-ZEISS
- Performance Assurance Program (extended warranty)

## spectral response



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\*Refer to QImaging website for detailed listing of supported operating systems.  
Note: Specifications are typical and subject to change.

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