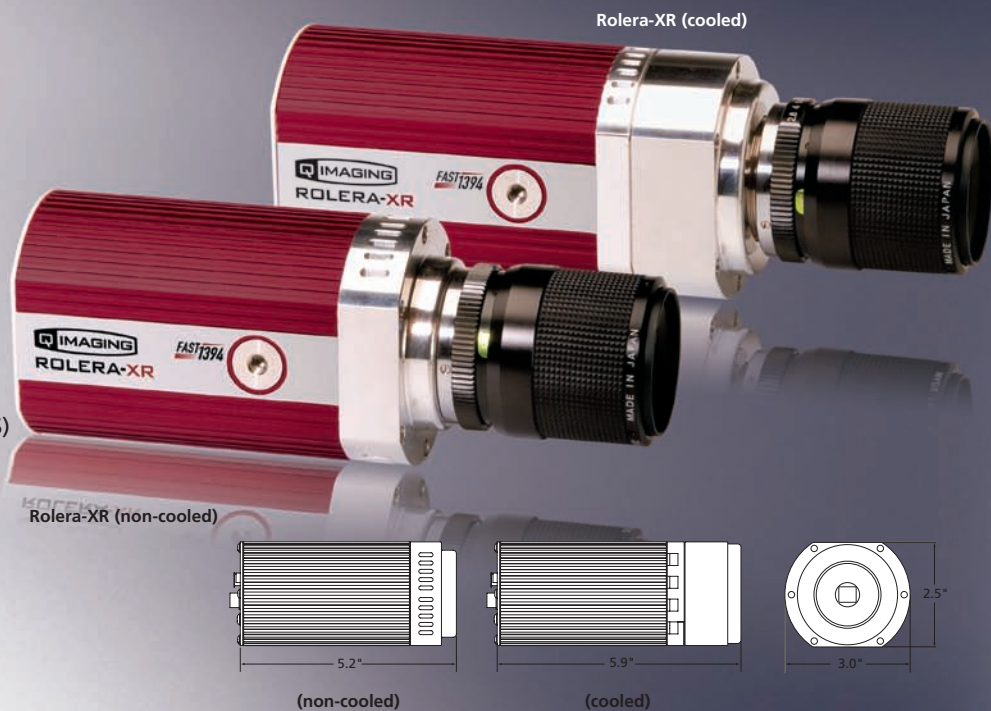


# ROLERA-XR *FAST1394*

High-Performance Near-Infrared IEEE 1394 FireWire™ Digital CCD Camera

The QImaging Rolera-XR digital camera is designed for high-resolution infrared and visible-range scientific and industrial imaging applications. The Rolera-XR spectral range extends to 1000nm in the IR region. High-speed, low-noise electronics provide linear digital data at frame rates up to 120 fps with binning and ROI. The IEEE 1394 FireWire™ digital interface allows ease of use and installation with a single wire. No framegrabber or external power supply is required. The Rolera-XR includes QCapture Pro software (Windows® and Mac OS) for real-time image preview and capture. A Software Development Kit (SDK) is available upon request for interfacing with custom software.



Note: Lens is shown for illustration only and is not included.

## CAMERA MODELS

Includes: IEEE 1394 FireWire™ cable, IEEE 1394 PCI card, QCapture Pro, QCapture Suite software, & access to SDK

- **Monochrome Rolera-XR Cooled**

Model: ROL-XR-F-M-12-C

- **Monochrome Rolera-XR Non-Cooled**

Model: ROL-XR-F-M-12

## CAMERA OPTIONS

- **Extended Warranty**

## FEATURES

High Quantum Efficiency

Large Pixels (12.9µm x 12.9µm)

High-Speed Readout

Low-Noise Electronics

Flexible Exposure Control from 10µs to 17.9min

External Sync & Trigger

ROI (Region of Interest)

Binning

Extended IR Sensitivity

IEEE 1394 FireWire™  
QImaging Fast 1394 Technology

## BENEFITS

- Super high sensitivity for demanding low-light & IR imaging

- High sensitivity

- Previewing & focusing in real time
- 120fps with 2x2 binning & ROI
- 20fps full resolution

- Quantitation & imaging of low light levels

- Optimal integration over a wide range of light levels

- Tight synchronization with flashlamps, automated filters, shutters, & microscope stages

- Higher frame rates for precise analysis of rapidly changing specimens

- Increases sensitivity for quantitation & imaging of very low light levels
- Increases frame rate

- High-performance imaging outside the visible range

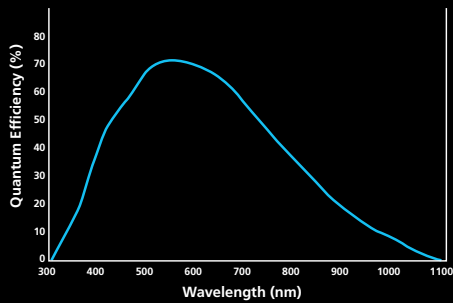
- Simple connectivity
- Ease of use & installation
- Portability with laptop computer
- Simultaneous use of multiple cameras through a single port
- Single-cable operation (no external power supply or control unit)

# ROLERA-XR FAST1394 SPECIFICATIONS

## APPLICATIONS

- Real-Time, Low-Light Infrared Imaging
- IR-DIC
- Surveillance
- Low Light Level Fluorescence
- Wafer Inspection
- Live Cell Imaging

## SPECTRAL RESPONSE



### CCD SENSOR

Light-Sensitive Pixels	696 x 520
Binning Modes	2x2, 4x4, 8x8
ROI (Region of Interest)	From 1x1 pixels up to full resolution, continuously variable in single-pixel increments
Exposure/Integration Control	10µs to 17.9min in 1µs increments
Sensor Type	VQE3618L progressive-scan interline CCD (monochrome)
Pixel Size	12.9µm x 12.9µm
Linear Full Well	22,000e <sup>-</sup>
Dark Current	1.78e <sup>-</sup> /pix/s (non-cooled)
Cooling Available	Yes (optional)
Cooling Type	Peltier thermoelectric cooling to 25°C below ambient
Digital Output	12 bits
Readout Frequency	20, 10, 5, 2.5MHz
Frame Rate	20fps full resolution @ 12 bits (165fps maximum with binning and ROI functions)

### CAMERA

Computer Platforms/Operating Systems	Windows® & Mac OS*
Digital Interface	IEEE 1394 FireWire™
Shutter Control	Electronic shutter, no moving parts
External Trigger	TTL Input
Trigger Types	Internal, Software, External
External Sync	TTL Output
Gain Control	1.0 to 45x
Offset Control	-2048 to 2047
Optical Interface	2/3", C-mount optical format
Threadmount	1/4" — 20 mount
Power Requirements	7W (non-cooled); 13W (cooled); 8-24V
Weight	635g (non-cooled); 915g (cooled);
Warranty	2 years
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)
Color Filter Option	No

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

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