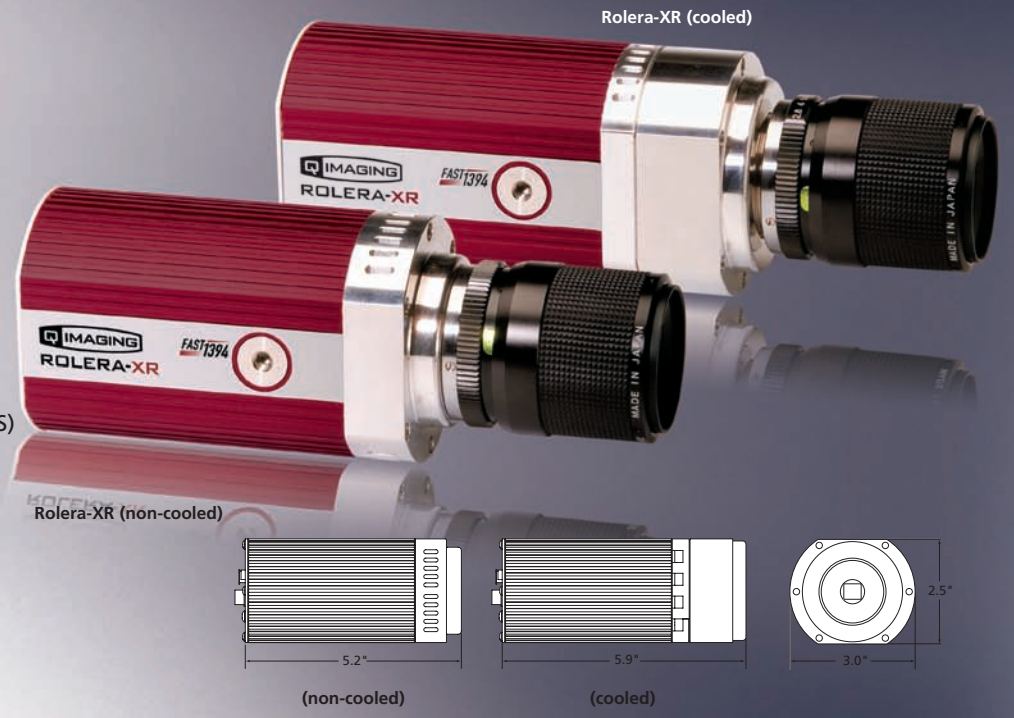
High Performance Digital Imaging **made easy**

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**

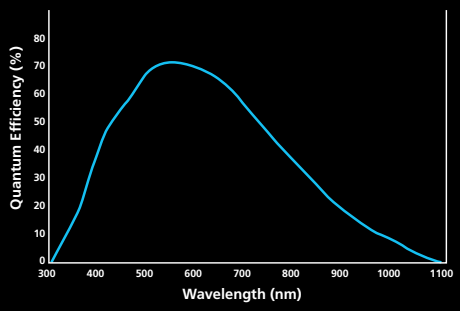
FEATURES	BENEFITS
High Quantum Efficiency	▪ Super high sensitivity for demanding low-light & IR imaging
Large Pixels (12.9µm x 12.9µm)	▪ High sensitivity
High-Speed Readout	▪ Previewing & focusing in real time ▪ 120fps with 2x2 binning & ROI ▪ 20fps full resolution
Low-Noise Electronics	▪ Quantitation & imaging of low light levels
Flexible Exposure Control from 10µs to 17.9min	▪ Optimal integration over a wide range of light levels
External Sync & Trigger	▪ Tight synchronization with flashlamps, automated filters, shutters, & microscope stages
ROI (Region of Interest)	▪ Higher frame rates for precise analysis of rapidly changing specimens
Binning	▪ Increases sensitivity for quantitation & imaging of very low light levels ▪ Increases frame rate
Extended IR Sensitivity	▪ High-performance imaging outside the visible range
IEEE 1394 FireWire™ QImaging Fast 1394 Technology	▪ 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$^-$
Dark Current	1.78e-/pix/s (non-cooled)
Cooling Available	Yes (optional)
Cooling Type	Peltier thermoelectric cooling to 25ºC 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.

QIMAGING®
Tel 604.708.5061 ▪ Fax 604.539.1825 ▪ info@qimaging.com
www.qimaging.com