Field-of-view: Discover more, faster

Great instruments don't create great science, but they are essential to telling the story. QImaging puts the right tool in your hands when the goal is fast, sensitive imaging and documentation in true plug-and-play fashion. With the QImaging Retiga R6, you get a 6.0 MP camera that fits more into your field of view. For time lapse, tile-and-stitch or stereo microscopy, the Retiga R6 will accelerate your discoveries.

The Retiga R6 is packed with advanced technical features that improve limits of detection and quantification. The camera generates large amounts of data, but handles it smoothly via the new super speed USB 3.0 interface.

Inside the R6 camera, QImaging introduces Intelligent Quantification™ - on camera intelligence features that correct for defective pixels. Fast 50 MHz pixel digitization increases camera frame rate to give you the speed you need to handle all the pixels in the Retiga R6.

A great camera deserves great software for acquisition - it's the way you interface with your data. Ocular™ is the all new imaging platform that's ready to become your go-to capture program. Built around controls you are already familiar with, it will be love at first click.

Scientific cameras are the cornerstone of the highest performing imaging instruments in a lab. Through careful selection of image sensors and components, the R6 will redefine your expectations, even for routine applications. You will not find a more capable large FOV camera on the market for this price… Call us to demo one today.

The Retiga R6™: When Pixels Rule

imaging needs	solutions
Extreme Low Light Imaging	■ 75% peak QE combined with low noise electronics reveals the weak signals missed by industrial cameras ■ Increased exposure time and binning enables detection of the faintest signals with deep sensor cooling
Rapid Find and Focus	■ 50MHz two port readout delivers frame rate for finding, focusing and imaging samples ■ Reduce photobleaching and phototoxicity on samples.
Flawless Images	■ Intelligent Quantification provides advanced real-time FPGA algorithms to deliver better image quality

RETIGA R6™ Specifications

ccd sensor

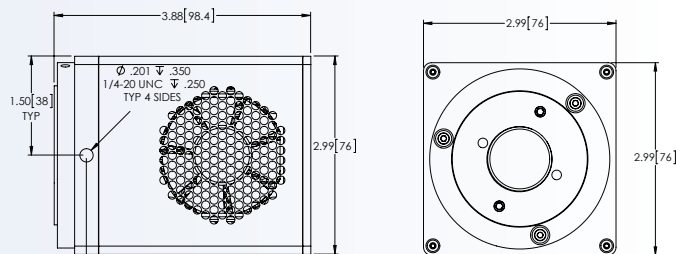|	
Sensor Type	Sony ICX-695 Scientific Interline CCD (Monochrome or Color)
CCD Array	2688 x 2200
Pixel Size	4.54μm x 4.54μm
Sensor Dimensions	12.5mm x 10mm (16mm diagonal)
Peak Quantum Efficiency	75% at 600nm
Full Well Capacity	>16,000e⁻ single pixel (>22,000e⁻ with on-chip binning)

camera

Digital Output	14 bit
Digitization Rate	USB3: 50MHz high frame rate
Read Noise (typical)	5.7e⁻ RMS
Frame Rate	6.9 fps (full resolution) 10.9 fps (binned 2x2)
Exposure Time Range	25μs - 60min
Supported Binning Modes	1x1, 2x2, 4x4, 6x6, 8x8, 12x12, 16x16, 24x24
Dark Current Rate (typical)	0.00017 e/p/s at -20°C regulated
Sensor Cooling	-20°C stabilized at 22°C ambient Thermoelectric cooling with forced air
Intelligent Quantification Features	Defect correction (nearest neighbor) Dynamic Dark Frame subtraction

interfacing

Computer Platforms/ Operating Systems	Windows 7 (64 bit), Windows 8 (64 bit) Refer to the QImaging website for the latest list of minimum computer recommendations
Digital Interface	USB3.0 (USB2 compatible at reduced max fps)
Triggering I/O Signals	Trigger In, Expose Out, End-of-Frame, Shutter Out
Supported Triggering Modes	Trigger First, Strobe, Bulb

mechanical

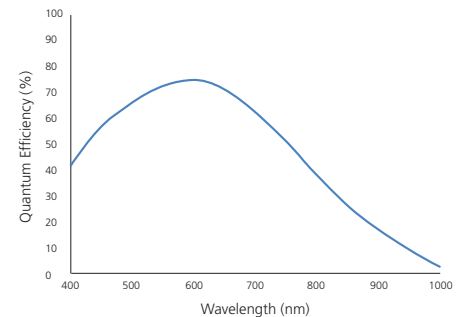|	
Optical Interface	1", C-mount optical format
Mounting Hole Thread Size	1/4" - 20 thread, 4 sides
Camera Dimensions	98.4mm x 76mm x 76mm (length x width x height)
Weight	1.55lb, 0.72kg
Power Requirement	12V DC, 5A

WHY RETIGA R6?

- **6.0MP - incredible field of view**
- **Ideal camera for slide screening, time-lapse, tile-and-stitch, stereo microscopy**
- **Proven technology - built on Sony ICX695 sensor**
- **Feature rich - cooled, fast focusing and Intelligent Quantification**
- **Ocular - powerful and intuitive capture software**
- **Service - unparalleled sales and support personnel**
- **Accelerate discovery - fit more into each frame**

included

- **Retiga R6 Scientific CCD Camera**
  - Model: 01-RET-R6-R-M-14-C (monochrome)
  - Model: 01-RET-R6-R-CLR-14-C (color)
- *Power Supply*
- *USB 3.0 Cable*
- *Trigger Cable*
- *Ocular™ Imaging Software*
- *Access to SDK*
- *Two Year Limited Warranty*

spectral response

Note: Specifications are typical and subject to change.