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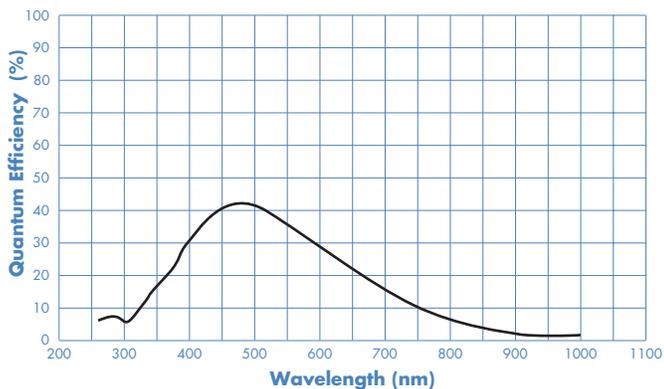
CoolSNAP*cf* Monochrome

1392 x 1040 imaging array | 4.65 x 4.65-μm pixels

The CoolSNAP*cf* Monochrome camera from Photometrics® incorporates low-noise electronics and moderate CCD cooling to achieve good low-light sensitivity. A megapixel sensor with small, square elements ensures that each image shows extraordinary detail. This feature, along with a high-speed digitizer, shutterless operation, and an interline-transfer CCD, makes the CoolSNAP*cf* Monochrome camera ideal for high-resolution microscopy and inspection applications.

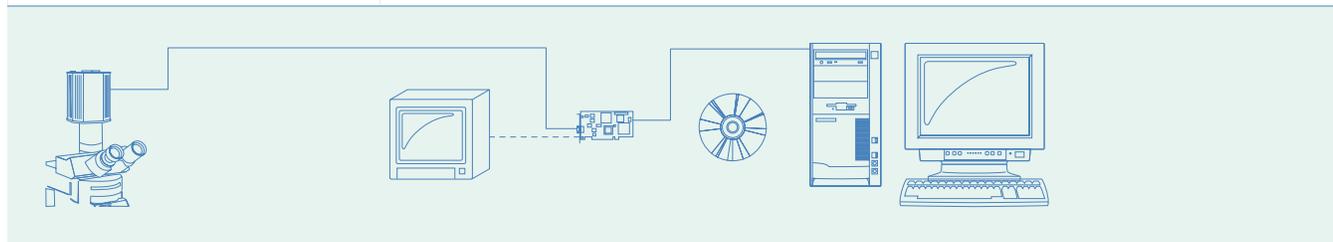| Features	Benefits
20-MHz digitization	Fast image readout for high-speed focus and image capture
1392 x 1040 imaging array 4.65 x 4.65-μm pixels	Resolves fine detail
Interline-transfer, progressive-scan CCD	Full resolution in every frame
Flexible binning and readout	Increases light sensitivity while increasing the frame rate
12-bit digitization	Quantifies bright and dim signals in the same image
Thermoelectric cooling	Increases integration times for higher sensitivity
C-mount	Easily attaches to microscopes, standard lenses, or optical equipment
Subcompact, fanless design	Low profile allows easy setup
Acquisition software	Captures, analyzes, and saves high-resolution images
Video output (optional)	Compatible with standard video equipment
PCI interface	High-bandwidth, uninterrupted data transfer
PVCAM® Circular buffers Device sequencing	Supported by numerous third-party software packages Real-time focus Precise integration with shutters, filter wheels, etc. *Compatible with Windows® 2000/XP, Mac OS X, and Red Hat® Linux® 9.0 (kernel version 2.4)*

CoolSNAP

Binning	Region		
	1392 x 1040	512 x 512	256 x 256
1 x 1	11	21	38
2 x 2	21	36	56
3 x 3	28	46	71
4 x 4	36	56	83
8 x 8	56	83	125

(Frames per second)

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

Specifications

CCD image sensor	Sony® ICX205AL; interline-transfer, progressive-scan device with microlenses
CCD format	1392 x 1040 imaging array 4.65 x 4.65-µm pixels 6.5 x 4.8-mm imaging area (optically centered) 1/2" format
Grade	Sony Grade 0
Gain	3 e-/ADU
Linear full well	9700 e-
Read noise	15 e- rms @ 20 MHz
Nonlinearity	<5%
Digitizer type	12 bits @ 20 MHz
Dark current	1.3 e-/p/s
Operating environment	15 to 30°C ambient
Dimensions	4.5" x 5.0" x 2.5" (1.9 lbs)
I/O	TTL output while exposing (BNC connector)
Video output (optional)	RS170/PAL selectable

Note: Specifications are typical and subject to change.

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