

Cool SNAP[™] cf Color Datasheet

HIGH PERFORMANCE EMCCD & CCD CAMERAS FOR LIFE SCIENCES



COLOR

1392 x 1040 imaging array 4.65 x 4.65-µm pixels

The CoolSNAP[™]cf Color camera from Photometrics[®] incorporates low-noise electronics and moderate CCD cooling to achieve good low-light sensitivity and color fidelity. 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 Color camera ideal for high-resolution color microscopy.



Primary applications Histology **DIC microscopy** Immunofluorescence FISH Fixed-cell GFP imaging High-resolution time-lapse microscopy

Features	Benefits
20-MHz readout	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
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
Dual-mode operation	Allows fast grayscale focusing and high-resolution color imaging
Acquisition software	Captures, analyzes, and saves high-resolution images
PCI interface	High-bandwidth, uninterrupted data transfer with no dropped frames
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® XP/Vista 32, Mac OS X, and Linux® (kernel versions 2.4 and 2.6.8)

	Specifications
CCD image sensor	Sony® ICX205AK (color); interline-transfer, progressive-scan device with microlenses
CCD format	1392 x 1040 imaging array 4.65 x 4.65-μm pixels 1/2" format
Grade	Sony Grade 0
Gain	3 e-/ADU
Linear full well	9700 e-
Read noise	10 e- rms @ 20 MHz
Nonlinearity	<5%
Digitizer type	12 bits @ 20 MHz
Dark current	<1 e-/p/s
Operating environment	15 to 30°C ambient
Dimensions	4.5" x 5.0" x 2.5" (1.9 lbs)
Window	IR blocking (700-nm cutoff)
I/O	TTL output while exposing (BNC connector)
Color mask	RGB Bayer mosaic filter

Note: Specifications are typical and subject to change.

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USA 520.889.9933 Asia Pacific +65.6841.2094 France +33.1.60.86.03.65 Germany +49.89.660.779.3 **Japan** +81.3.5639.2731 **UK** +44.1628.890858

