

CoolSNAPES Monochrome



1392 x 1040 imaging array | 6.45 x 6.45-µm pixels

The CoolSNAPES Monochrome camera from Photometrics® is a fast, high-resolution digital imaging system designed for low-light scientific and industrial applications. This moderately cooled CCD camera system provides 12-bit digitization at 20 MHz. The fine pitch of the pixels is ideally matched to the resolution of optical microscopes. Megapixel resolution and small pixels allow imaging of very fine detail, yet the pixels can be easily binned to improve sensitivity. New interline-transfer CCD technology provides high quantum efficiency, most notably in the near-infrared (NIR) portion of the spectrum.

Benefits Features 20-MHz digitization High-speed, high-sensitivity readout 1392 x 1040 imaging array Resolves fine detail 6.45 x 6.45-µm pixels Ideally matched to optical microscope Interline-transfer, progressive-scan CCD Electronic shuttering eliminates camera vibration and facilitates fast triggering 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 Enhanced quantum efficiency Provides higher sensitivity than typical interline cameras (especially in the NIR) Easily attaches to microscopes, standard lenses, or optical equipment C-mount Subcompact, fanless design Low profile allows easy setup Acquisition software Captures, analyzes, and saves high-resolution images Compatible with standard video equipment Video output (optional) High-bandwidth, uninterrupted data transfer PCI interface **PVCAM®** Supported by numerous third-party software packages Circular buffers Real-time focus Precise integration with shutters, filter wheels, etc. Device sequencing Compatible with Windows® 2000/XP, Mac OS X, and Red Hat® Linux® 9.0 (kernel version 2.4)





		Re	gion	
		1392 x 1040	512 x 512	256 x 256
Binning	1 x 1	11	20	36
	2 x 2	20	36	58
	3 x 3	28	48	73
	4 x 4	35	58	83

(Frames per second)

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

Specifications

CCD image sensor	Sony [®] ICX285; interline-transfer, progressive-scan device with microlenses	
CCD format	1392 x 1040 imaging array 6.45 x 6.45-µm pixels 8.77 x 6.6-mm imaging area (optically centered)	
Linear full well	16,000 e (single pixel) 30,000 e (2 x 2 binned pixel)	
Read noise	≤8 e- rms @ 20 MHz	
Nonlinearity	<1%	
Digitizer type	12 bits @ 20 MHz	
Frame readout	91 ms/frame	
Dark current	l 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.

CoolSNAP is a trademark of Roper Scientific, Inc. Photometrics, PVCAM, and Roper Scientific are registered trademarks of Roper Scientific, Inc. Linux is a registered trademark of Linus Torvalds. Mac OS is a trademark of Apple Computer, Inc., registered in the U.S. and other countries. Red Hat is a registered trademark of Red Hat, Inc. Sony is a registered trademark of Sony Corporation. Windows is a registered trademark of Microsoft Corporation in the United States and other countries. Other brand and product names are the trademarks or registered trademarks of their respective owners and manufacturers.

ISO
9001:2000

