

Cool SNAP[™] MYO Datasheet

HIGH PERFORMANCE EMCCD & CCD CAMERAS FOR LIFE SCIENCES



Primary applications Fixed Cell Imaging Immunofluorescence Cell Trafficking FRET, FRAP, FISH Near-Infrared DIC Calcium/Ion Imaging

coolsnap MAYO



1940 x 1460 imaging array 4.54 x 4.54 µm pixels

The CoolSNAP MYO is a high resolution, high sensitivity camera for moderate to low-light life science applications. This unique cooled CCD provides 4.54µm pixel pitch, 14-bit digitization at 20MHz, enabling high spatial resolution and an optimized frame rate for live cell imaging. Its 2.8 Megapixels and a high Quantum Efficiency enables sensitive imaging with the option for binning for a higher dynamic range as well as increased signal-to-noise performance – all while providing an ideal pixel pitch for microscopy.

Features	Benefits	
1940 x 1460 imaging array 4.54 x 4.54 µm pixels	High spatial resolution for imaging finer details	
High Quantum Efficiency	~75% peak quantum efficiency delivers high sensitivity	
20 MHz read out	High Speed readout to maximize temporal resolution	
USB 2.0 Interface	Easy connectibility and setup	
Binning	Increase frame rate and signal-to-noise performance	
14-bit digitization	Quantify bright and dim signals in the same image	
Thermoelectric cooling	Stabilized cooling produces a low dark current for long exposures	
Fan Disable Option	Disable the fan for vibration-sensitive applications	
C-mount	Easily attaches to microscopes, standard lenses, or optical equipment	
Acquisition software	Captures, analyzes, and saves high-resolution images	
PVCam® Driver	Support in a wide range of third party software packages Supported in Windows 7 64-bit/32-bit	

Interline-Transfer CCD Camera

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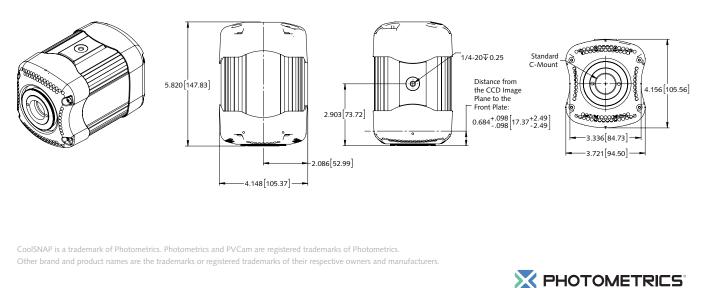
		Region			
		1940 x 1460	970 x 730	646 x 486	
	1 x 1	6.3	11.8	16.8	
Binning	2 x 2	11.6	20.8	28.4	
Binr	3 x 3	16.2	27.8	36.5	
	4 x 4	20.1	33.2	42.6	

(Frames per second)

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

	Specifications
CCD Sensor	Sony® ICX-674 Interline CCD
CCD Format	1940x1460 imaging array 4.54x4.54 μm pixels 8.8 x 6.6 mm imaging area (11mm diagonal, 2/3″ format)
Linear Full-Well	12,000e-
Read Noise	5.5e- @ 20MHz 4.5e- @ 10MHz 3.5e- @ 1.25MHz
Nonlinearity	<1%
Digitization	20MHz, 10MHz, 1.25MHz
Cooling	0°C
Dark Current	0.005 e-/pixel/second @ 0°C
Operating Environment	0 to 30°C ambient, 0-80% relative humidity non-condensing
Triggering	Trigger First Mode Strobe Mode Bulb Mode
Power Requirements	5V DC, 4A Maximum

Note: Specifications are typical and subject to change.



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