

# MicroLine CCD Camera

## ML4720 MB

The ML4720 uses a back-illuminated frame transfer CCD. Half of the sensor is covered with a metal mask; half is exposed to light. The exposed side of the sensor is centered in the camera aperture. The image is shifted under the mask in about 10 milliseconds.

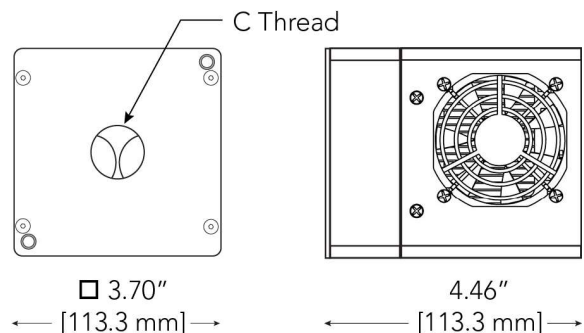
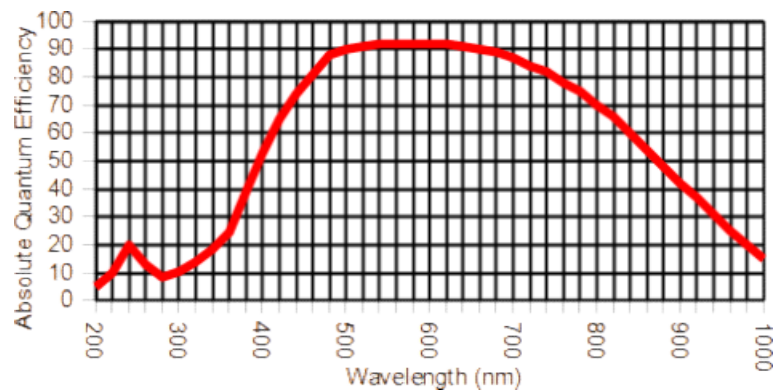
### Technical Data

<b>Sensor Type</b>	Back Illuminated Frame Transfer CCD
<b>Sensor</b>	e2v CCD47-20-1-339 (MB)
<b>Active Pixels</b>	1024 x 1024
<b>Pixel Size (microns)</b>	13 x 13 $\mu\text{m}$
<b>Imaging Area (Diagonal)</b>	13.3 X 13.3 mm (18.8 mm)
<b>Full Well Capacity (e-)</b>	100000 electrons
<b>Typical_Readout Noise</b>	13e- at 500 kHz; 18e- at 2 MHz
<b>Dynamic Range</b>	79.7 dB
<b>Anti-Blooming</b>	None
<b>Cooling Method</b>	Air (Optional liquid)
<b>Max. Cooling (Air)</b>	55°C below ambient
<b>Temperature Stability</b>	0.1°C
<b>Dark Current (typical)</b>	0.3 eps at -30C
<b>Interface</b>	USB 2.0
<b>Digitization Clock</b>	500 kHz and 2 MHz per channel
<b>Data Bit Depth</b>	16 bit
<b>Non-Linearity</b>	<1%
<b>Channels</b>	2 (optional 1)
<b>Shutter</b>	Optional 25mm
<b>Lens Mount</b>	C-mount; Nikon or Canon mount
<b>Subarray Readout</b>	Standard
<b>External Trigger In/Out</b>	Standard
<b>SDK / Software</b>	USB2 / FLIGrab
<b>Weight</b>	2.8 lbs (1.2 kg)
<b>Environment</b>	-30°C to 45°C   10% - 90% Relative Humidity
<b>Power</b>	

12V (100-240V AC to 12V DC power supply included). With TEC off: <1A.  
TEC at 100%: 4.4A. Shutter open: 4A pulse for 100msec. Shutter held open, add 0.22A.



### Absolute Quantum Efficiency



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