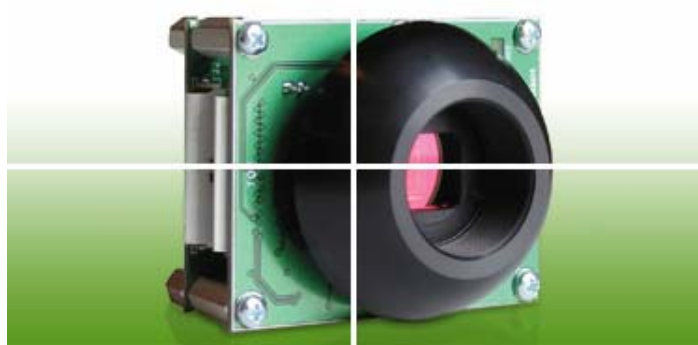
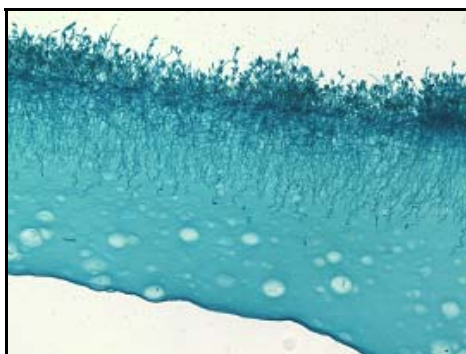


5.0 Megapixel CMOS USB 2.0 Camera


Outline

Lumenera's Lw1570/Lw1575 5.0 megapixel board level digital camera is designed for use in a wide variety of scientific applications where higher resolution is routinely required. With 2592x1944 resolution and on-board processing, the Lw1570/Lw1575 delivers outstanding image quality for a wide variety of scientific and industrial applications.



Uncompressed images in live streaming video and still-image capture are provided across a USB 2.0 digital interface. No framegrabber is required.

Hardware and software based synchronization trigger is available. On-board memory is available for frame buffering. These board level camera modules are also offered in custom enclosures (Lw1575), as well as custom form factors and OEM configurations (Lw1570).

Stable camera drivers allow users to reliably run multiple cameras on a PC or other USB device.

All Lumenera products are supported by an experienced team of software developers and application engineers. We understand your imaging needs and are here to help you with your integration and development.

Performance Features

- ❑ **High resolution CMOS color or monochrome microscopy camera for qualitative image archiving**
- ❑ **High-speed USB 2.0 interface eliminates a framegrabber and facilitates ease of installation on both laptop and desktop computers**
- ❑ **Low noise characteristic of the Lw1570/Lw1575 progressive scan 5.0 megapixel image sensor results in crisp color quality for the most demanding brightfield and darkfield microscopy applications including clinical pathology and cytology, life science and geology**
- ❑ **Full color sub-windowing allows for rapid focus and scanning of samples: 7 fps at full 2592x1944 resolution and 60 fps at 640x480 resolution**
- ❑ **Selectable 8 & 12-bit pixel data modes**
- ❑ **RGB data captured through each pixel contains 36-bits of color image information resulting in 4096 intensity values**
- ❑ **Monochrome also available**
- ❑ **GPI/O for control of peripherals and synchronization of lighting (4in/4out)**
- ❑ **Camera control through an intuitive user TWAIN interface results in rapid image capture archiving and documentation for high throughput applications, demanding research environments and teaching facilities**
- ❑ **The Lw1570/Lw1575 has a compact design equipped with a C-Mount facilitating installation on all microscope configurations including upright, inverted and stereo**
- ❑ **Lw cameras are software compatible with Windows 2K, Windows XP, Windows Vista 32 and 64-bits**
- ❑ **Full one (1) year warranty**

Specifications

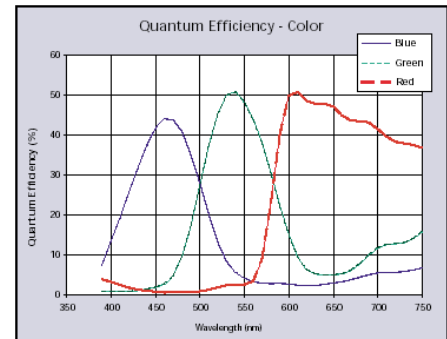
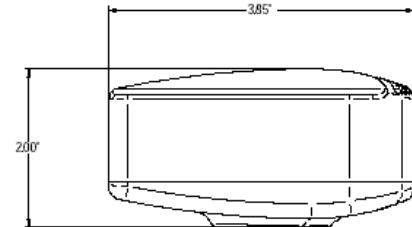
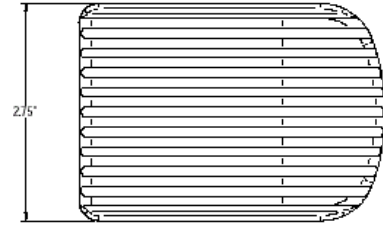
Lw1570/Lw1575

Camera Sensor

Image Sensor	1/2.5" format, CMOS, color or mono, 5.7mm x 4.28mm array
Effective Pixels	2592 x 1944, 2.2µm square pixels
Frame Rate	7 fps at 2592x1944, 60 fps at 640x480
Dynamic Range	>60dB
Digital Output	8 and 12-bit uncompressed
Read Out Frequency	48 MHZ

Camera Controls

Dimensions (W x H x D)	3.85 x 2.00 x 2.75 inches
Mass	300g
Power Requirement	USB bus power, or external 5VDC - 500mA
Power Consumption	~2.5Watts
Operating Temperature	0° C to +50° C
Operating Humidity	5%-95%, Non-condensing
Integration Time	1/1000 to 3 sec.
Shutter	Rolling shutter with single frame capture
ROI	User selectable
Auto Exposure	Automatic / Manual
White Balance	Automatic / Manual
Gain	1 to 10X programmable
Interface	USB 2.0 high-speed interface
Lens Mount	C-Mount lens adapter



Applications

Fluorescent Microscopy
Green Fluorescent Protein applications
Fluorescent In Situ hybridization
DNA analysis
Live Cell Imaging
Brightfield, Darkfield, DIC/Phase techniques
Near IR applications
Histology, Pathology and Cytology
Forensic Analysis
Semiconductor Inspection
Metallurgical microscopy

Ordering Information

Lw1570C	- OEM Board Level 5.0 MP CMOS Color Camera Module
Lw1570M	- OEM Board Level 5.0 MP CMOS Monochrome Camera Module
Lw1575C	- Enclosed 5.0 MP CMOS Color Camera
Lw1575M	- Enclosed 5.0 MP CMOS Monochrome Camera
LuSDK	- Developers Kit and Accessories

**Full customization available
to meet your exact needs!**