

# 6.6 Megapixel USB 2.0 Camera





# **Outline**

Lumenera's Lw620 and Lw625 series of multimegapixel cameras are designed to be used in a wide variety of applications where high-resolution detail is required.

With 3000x2208 resolution and on-board processing these cameras deliver outstanding image quality and value for industrial and scientific imaging applications.

Uncompressed images in live streaming video and still image capture are provided across a USB 2.0 digital interface. No framegrabber is required. Advanced camera control is available through a complete Software Developer's Kit (SDK), with sample code available to quickly integrate camera functions into OEM applications.

Hardware and software based synchronization trigger is provided standard. Camera models are offered in both enclosed (Lw625) and board-level (Lw620) form. Custom form factor (sizes) can be provided. Both color and monochrome models are available.

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 dynamic range sensor using multi-slope integration
- Color or monochrome, progressive scan, 6.6 megapixel sensor
- □ High-speed USB 2.0 (480Mbits/sec)
- □ 5 fps at full 3000x2208 resolution
- □ Higher frame rate at lower resolution with full sub-window control
- GPI/Os for control of peripherals and synchronization of lighting (4in/4out)
- □ FCC Class B, CE Ready
- □ RGB Bayer video output
- □ Select 8 or 10-bit pixel data
- Simplified cabling video, power and full camera control over a single USB cable
- □ C-Mount provided
- □ DirectShow compatible
- □ USB cameras are software compatible with Windows™ 98 SE, Windows ME, Windows 2K, Windows XP and Windows Vista operating systems
- □ Complete SDK available
- □ Full one (1) year warranty

Image Sensor >2/3" format, color or mono, 10.5mm x 7.7mm array

Effective Pixels 3000 x 2208, 3.5µm square pixels

Frame Rate 5 fps at 3000x2208, faster frame rates with ROI

Dynamic Range 56dB

~100dB in multi-slope integration mode

Sensitivity Moderate

White Balance Auto / Manual

Dimensions (W x H x D) 2.00 x 2.50 x 1.63 inches (board level)

2.25 x 3.85 x 1.56 inches (enclosed)

Mass ~150g / 300g

Power Requirement USB bus power, or external 5VDC, 500mA

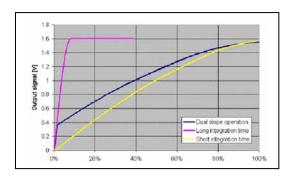
Power Consumption ~2.5 Watts

Operating Temperature 0°C to +50°C

**Operating Humidity** 5%-95%, Non-condensing

Interface Connector Standard USB

Lens Mount (Lens not included) **C-Mount (CS-Mount option)** 



Monochrome Response Curve

#### **Dual Slope Integration Mode:**

On chip method of extending the dynamic range by integrating a long and short frame exposure into one still image. Short-integration controls overexposure of bright conditions, while long-integration supports exposure of low-light conditions. The resulting electro-optic curve is shown in the graph here.

#### Ordering Information

LuSDK

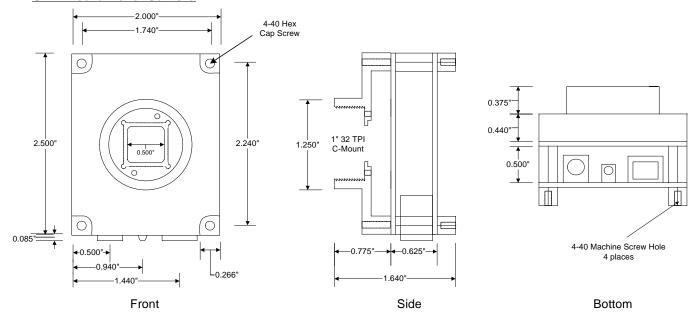
Lw620M Lw620C	<ul><li>Monochrome Camera Module</li><li>Color Camera Module</li></ul>
Lw625M Lw625C	<ul><li>– Enclosed Monochrome Camera</li><li>– Color Camera Module</li></ul>

- Software Developer's Kit

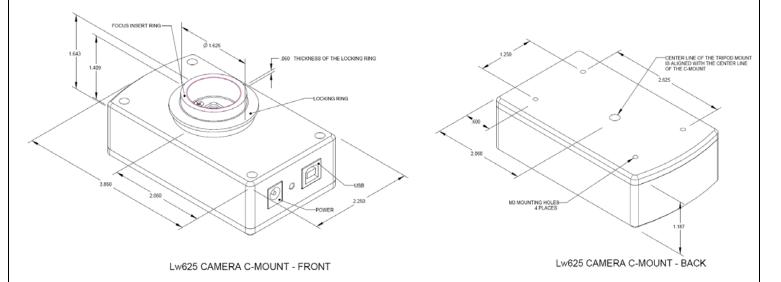
## Full customization available to meet your exact needs!

Lw620/Lw625 **Mechanicals** 

## **OEM Board-Level Camera**



### **Enclosed Camera** \*



## Full customization available to meet your exact needs!

<u>Available Options:</u> Without Standard IR-Cut Filter Without Sensor Cover Glass Without Mount **Board Level** Adjustable CS-Mount

Contact us for more specific details.

\* Anodized aluminum, std color - black