

**2.1 Megapixel USB 2.0 Camera****Outline**

Lumenera's Lw290 and Lw295 series of megapixel cameras are designed to be used in a wide variety of applications, particularly in high-speed conditions. Color product models are available.

With 1920x1080 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.

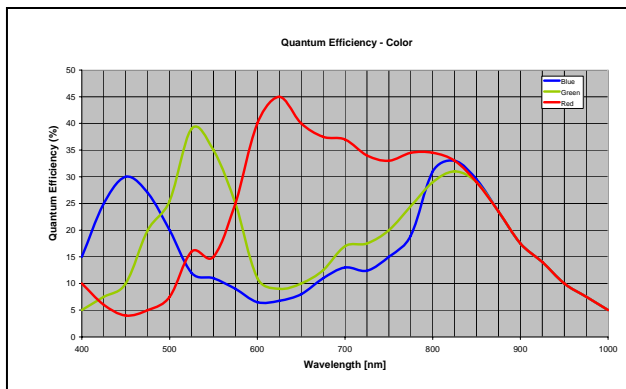
Hardware and software based synchronization trigger is provided standard. Camera models are offered in enclosed (Lw295), board-level (Lw290), and custom form factor (sizes).

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.

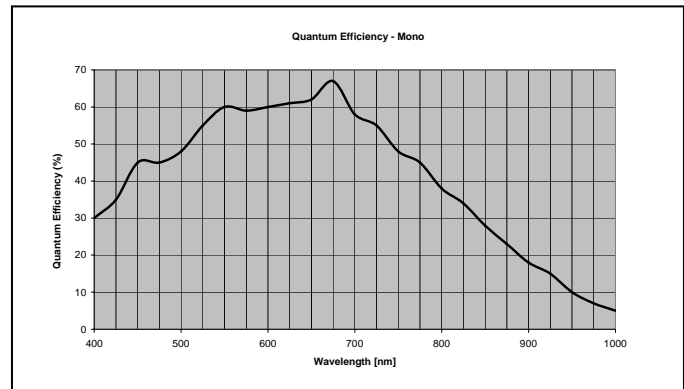
**Performance Features**

- High quality CMOS sensor
- New HD format sensor
- Stable, reliable camera drivers for running multiple cameras on a PC or other USB devices
- Color, interline transfer progressive scan, 2.1 megapixel CMOS sensor
- High-speed USB 2.0 (480Mbits/sec)
- 20 fps at full 1920x1080 resolution, faster fps at smaller regions of interest
- GPIOs 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 and full camera control over a single USB cable
- C-Mount provided
- DirectShow compatible
- USB cameras are software compatible with Windows™2K, Windows XP and Windows Vista 32 and 64-bit operating systems
- Complete SDK available
- Full one (1) year warranty

|                                |   |
|--------------------------------|---|
| Image Sensor                   | <b>2/3" format, color, 9.6mm x 5.4mm array</b>  |
| Effective Pixels               | <b>1920x1080, 5.0µm square pixels</b>   |
| Frame Rate                     | <b>20 fps at 1920x1080</b>  |
| Sensitivity                    | <b>Moderate</b>   |
| Exposure                       | <b>Auto / Manual</b>  |
| White balance                  | <b>Auto / Manual</b>  |
| Dynamic Range                  | <b>&gt;60dB</b>   |
| Dimensions (W x H x D)         | <b>2.00 x 2.50 x 1.63 inches (board level)</b><br><b>2.25 x 3.85 x 1.56 inches (enclosed)</b> |
| Mass                           | <b>~150g / 300g</b>   |
| Power Requirement              | <b>External 5VDC, 800mA (included)</b>  |
| Power Consumption              | <b>~4.0 Watts</b>   |
| Operating Temperature          | <b>0°C to +50°C</b>   |
| Operating Humidity             | <b>5%-95%, Non-condensing</b>   |
| Interface Connector            | <b>Standard USB cable</b>   |
| Lens Mount (Lens not included) | <b>C-Mount (CS-Mount option)</b>  |



**Color Response Curve**



**Mono Response Curve**

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

**Available Options:**

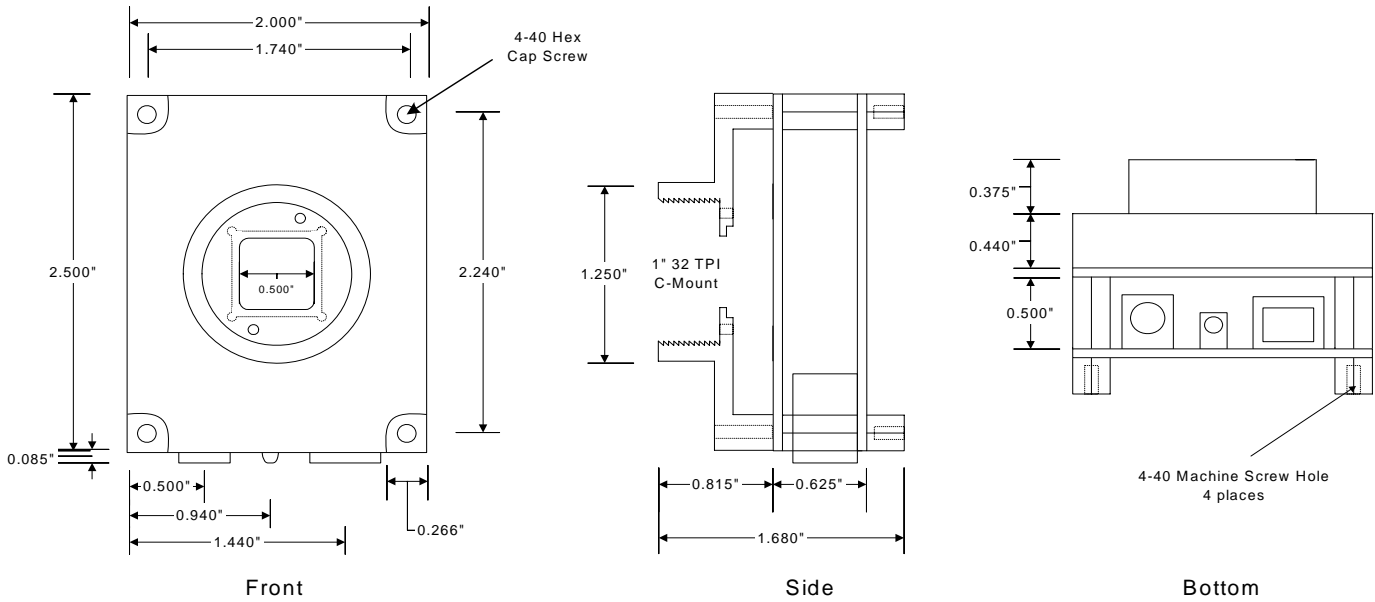
- Without Standard IR-Cut Filter
- Without Glass
- Without Mount
- Board Level
- Adjustable CS-Mount

Contact us for more specific details.

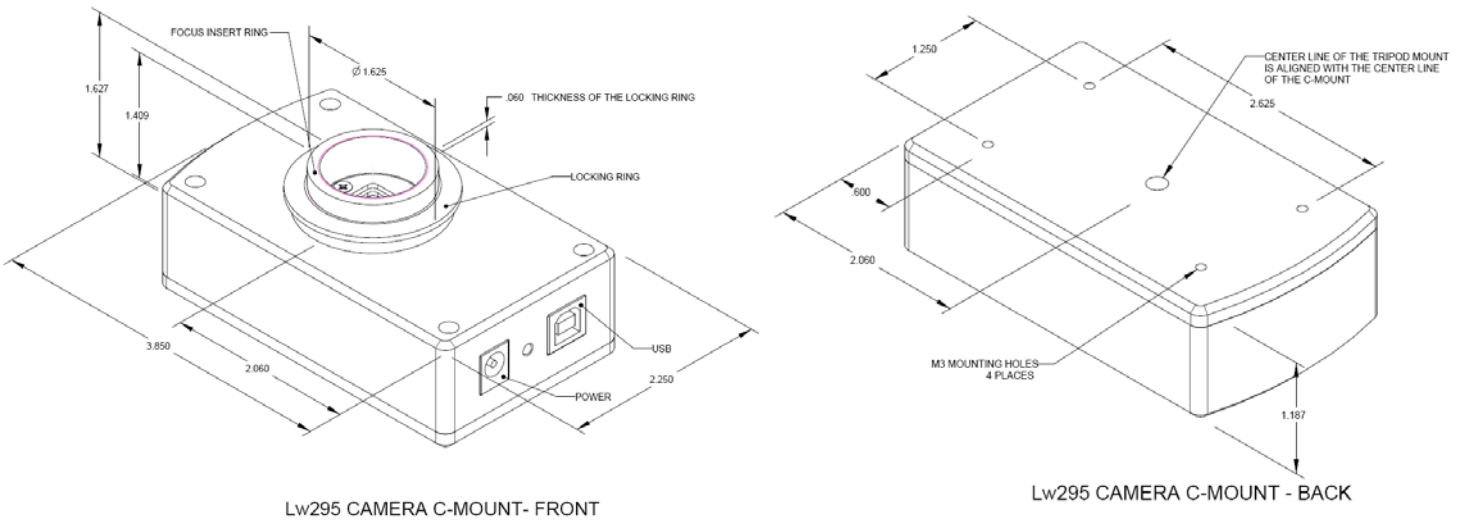
***Ordering Information***

- Lw290C – Color Camera Module
- Lw295C – Enclosed Color Camera
- LuSDK – Developer's Kit and Accessories

## OEM Board-Level Camera



## Enclosed Camera \*



\* Anodized aluminum, std color - black