

2.1 Megapixel USB 2.0 Camera



Outline

Lumenera's Lw290 series of megapixel cameras are designed to be used in a wide variety of applications, particularly in high-speed conditions. Both color and monochrome 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. Lw290 model cameras are offered in both enclosed and board-level form. Custom form factor (sizes) can be provided.

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. Products come with a full one (1) year warranty.

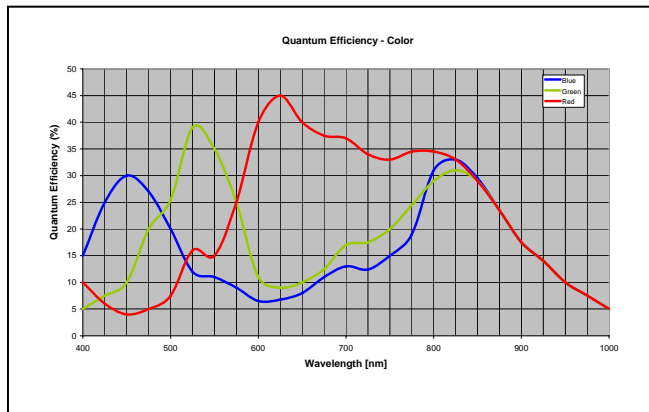
Performance Features

- High quality CMOS sensor
- New HD format sensor
- Color or monochrome, 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 12-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™ 98 SE, Windows ME, Windows 2K and Windows XP operating systems
- Complete SDK available

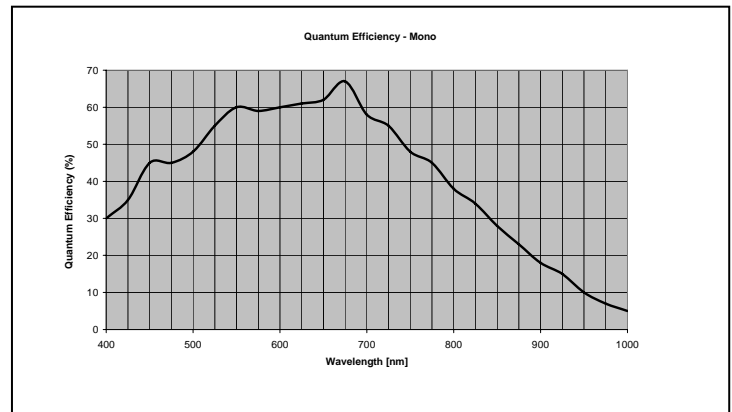
Specifications

Lw290

Image Sensor	2/3" format, color or monochrome, 9.6mm x 5.4mm array
Effective Pixels	1920x1080, 5.0µm square pixels
Frame Rate	20 fps at 1920x1080
Sensitivity	Moderate
Exposure	Auto / Manual
White balance	Auto / Manual
Dynamic Range	>60dB
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	External 5VDC, 800mA (included)
Power Consumption	~4.0 Watts
Operating Temperature	0°C to +50°C
Operating Humidity	5%-95%, Non-condensing
Interface Connector	Standard USB cable
Lens Mount (Lens not included)	C-Mount (CS-Mount option)



Color Response Curve



Mono Response Curve

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

Ordering Information

- Lw290M – Monochrome Camera Module
- Lw290C – Color Camera Module

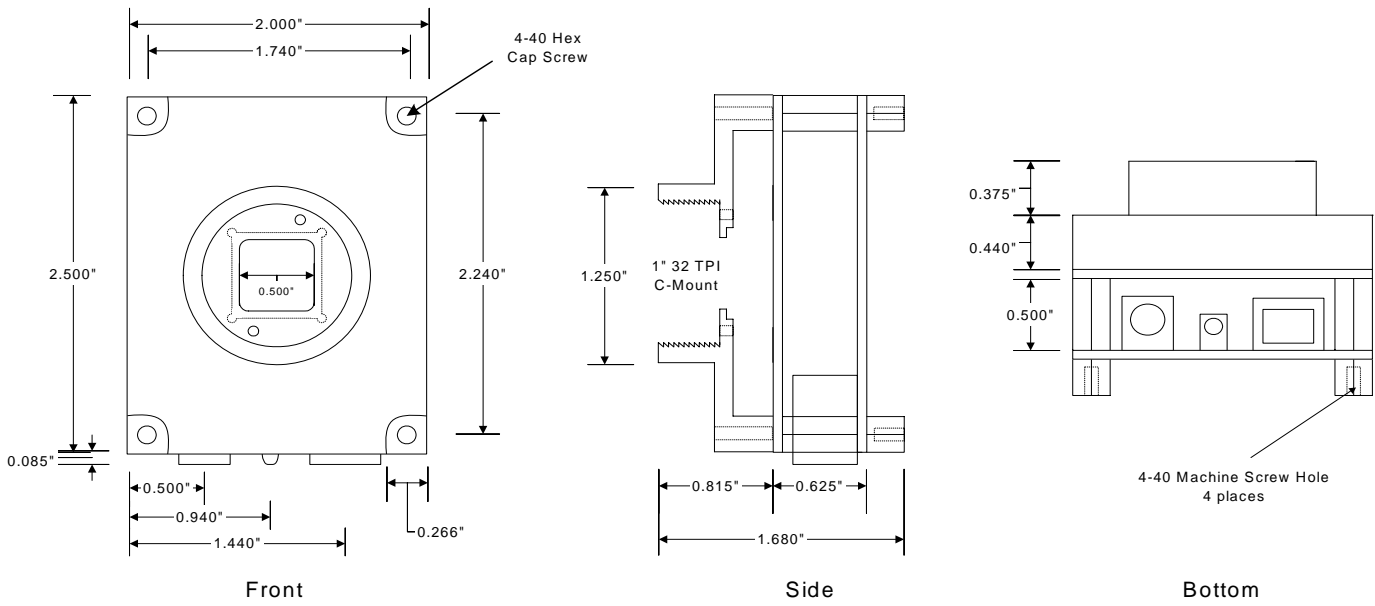
- Lw295M – Enclosed Monochrome Camera
- Lw295C – Enclosed Color Camera

- LuSDK – Developer's Kit and Accessories

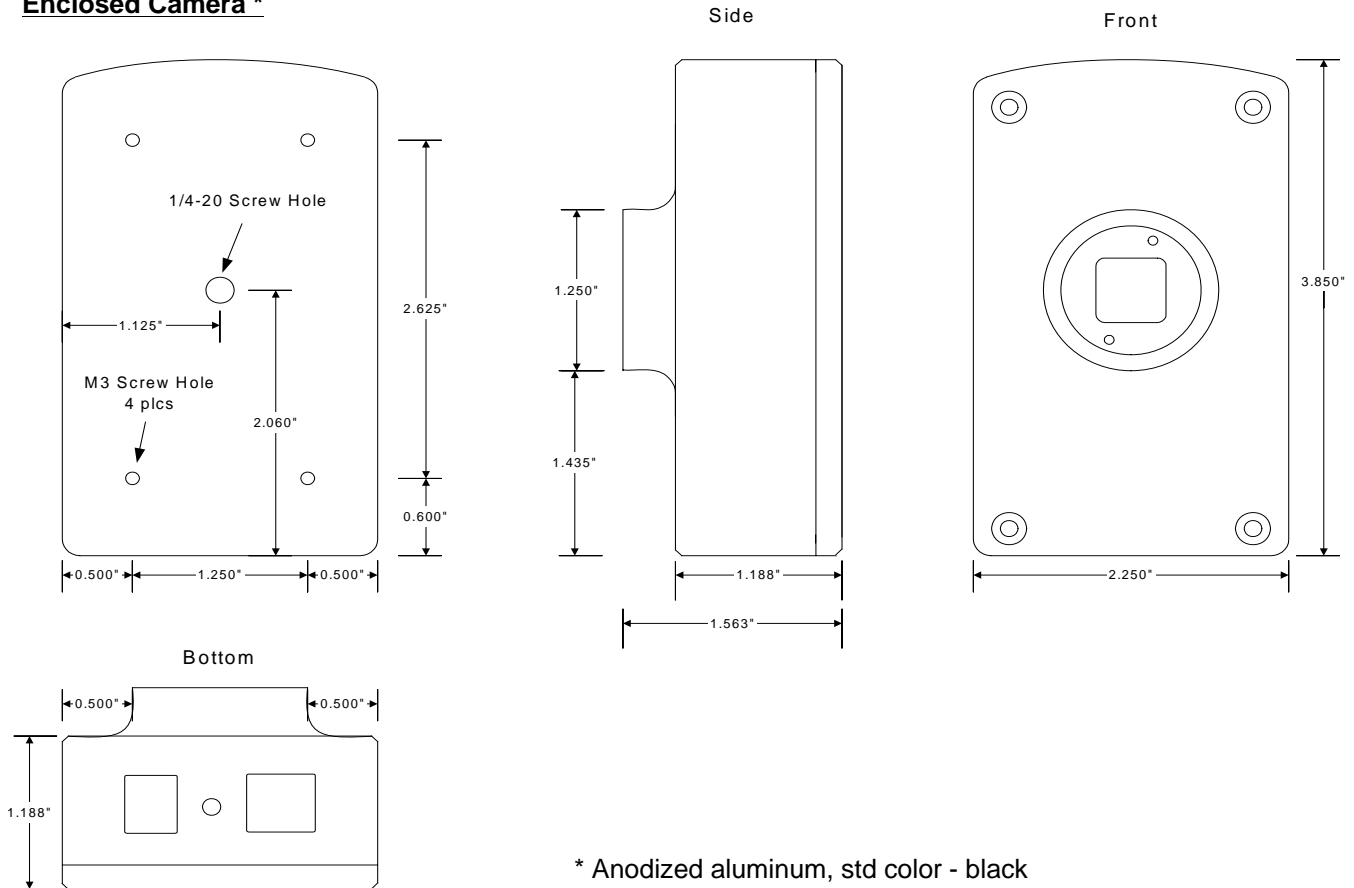
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Design, features, and specifications are subject to change without notice.
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OEM Board-Level Camera



Enclosed Camera *



* Anodized aluminum, std color - black