Lw230

2.0 Megapixel USB 2.0 Camera

Outline

Lumenera's Lw230 series of megapixel cameras are designed to be used in a wide variety of applications, particularly in low-light conditions. Both color and monochrome product models are available.

With 1624x1232 resolution and on-board processing these cameras deliver outstanding image quality and value for industrial and scientific imaging applications.

Electronic Global Shutter provides capabilities similar to a mechanical shutter, allowing simultaneous integration of the entire pixel array. Ideal for capturing objects in high speed motion.

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. Lw230 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 CCD sensor**

- ❑ **Excellent sensitivity with high color reproductivity**

- ❑ **Color or monochrome, interline transfer progressive scan, 2.0 megapixel CCD sensor**

- ❑ **High-speed USB 2.0 (480Mbits/sec)**

- ❑ **10 fps at full 1624x1232 resolution**

- ❑ **Global shutter for capturing fast moving objects and strobe lighting**

- ❑ **GPI/Os 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   Lw230

Image Sensor	**1/1.8" format, color or monochrome, 8.50mm x 6.80mm array**
Effective Pixels	**1624x1232, 4.40μm square pixels**
Frame Rate	**10 fps at 1624x1232, 20 fps with binning (2x - 4x)**
Sensitivity	**High**
Exposure	**Manual**
White balance	**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 6VDC, 800mA (included)**
Power Consumption	**~4.0 Watts**
Operating Temperature	**0°C to +50°C**
Operating Humidity	**0%-95%, Non-condensing**
Interface Connector	**Standard USB cable**
Lens Mount (Lens not included)	**C-Mount (CS-Mount option)**
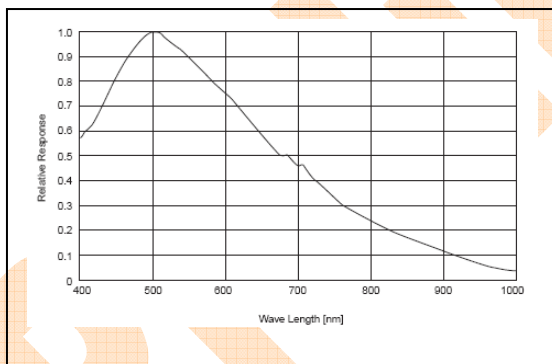
Mono Response Curve
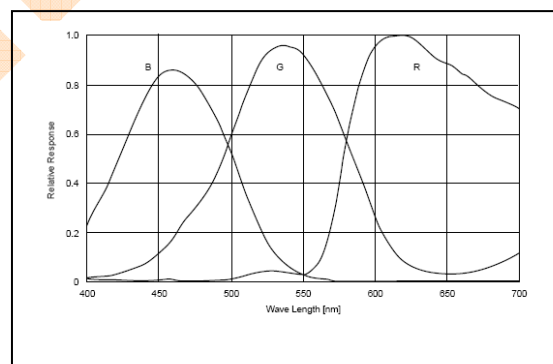
Color Response Curve

Full customization available to meet your exact needs!

Ordering Information
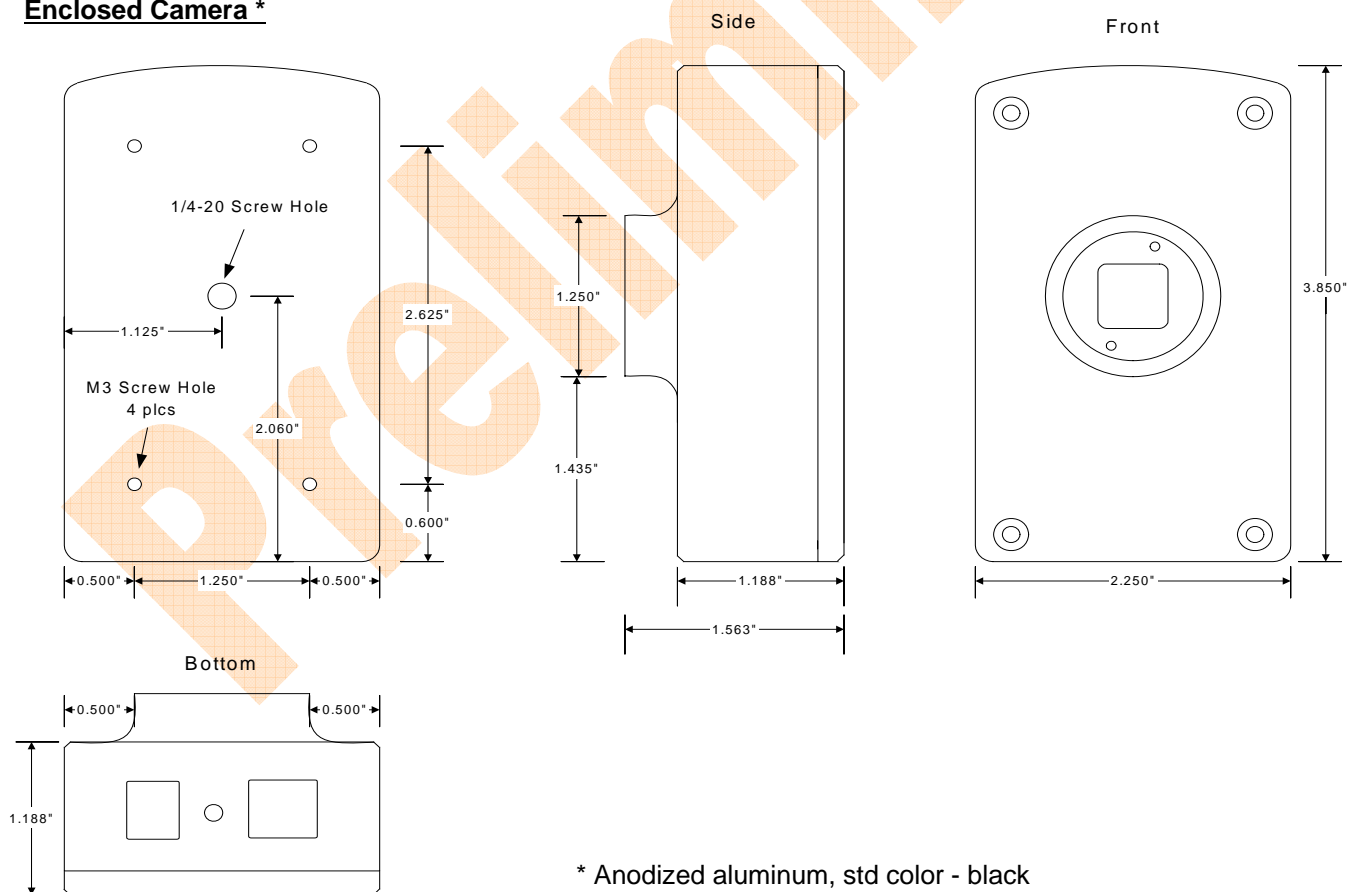
Lw230M	– Monochrome Camera Module
Lw230C	– Color Camera Module
Lw235M	– Enclosed Monochrome Camera
Lw235C	– Enclosed Color Camera
LwSDK	– Developer's Kit and Accessories

OEM Board-Level Camera

2.000"
1.740"
4-40 Hex Cap Screw
2.500"
2.240"
0.500"
0.085"
0.500"
0.940"
1.440"
0.266"

Front

1.250"
1" 32 TPI C-Mount
0.815"
0.625"
1.680"

Side

0.375"
0.440"
0.500"
4-40 Machine Screw Hole 4 places

Bottom

Enclosed Camera *

Side

Front

1/4-20 Screw Hole
1.125"
2.625"
M3 Screw Hole 4 plcs
2.060"
0.600"
0.500"
1.250"
0.500"

1.250"
1.435"
1.188"
1.563"

3.850"
2.250"

Bottom

0.500"
0.500"
1.188"
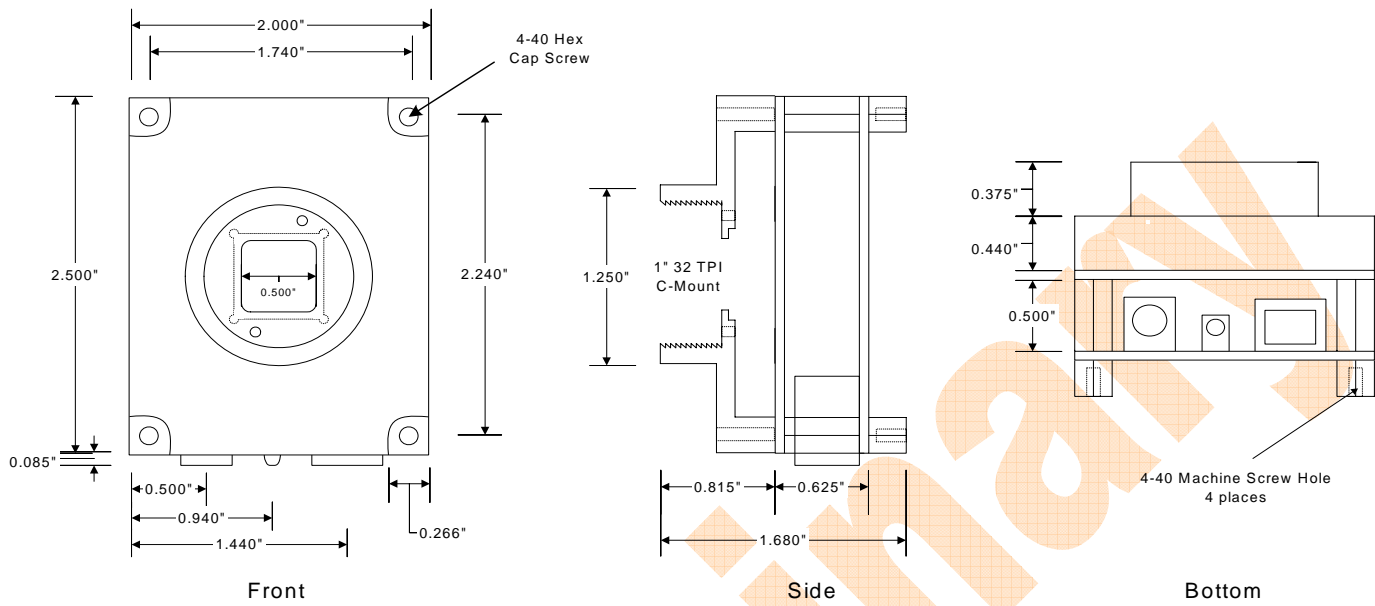
* Anodized aluminum, std color - black

Lumenera Corporation • 7 Capella Court, Ottawa ON, Canada K2E 8A7 • (t) 1.613.736.4077 • (f) 1.613.736.4071 • www.lumenera.com