

1.4 Megapixel USB 2.0 Camera**Outline**

Lumenera's Lu130 and Lu135 series of megapixel cameras are designed to be used in a wide variety of applications, particularly in low-light conditions.

With 1392x1040 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. This is 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. Camera models are offered in both enclosed (Lu135) and board-level (Lu130) form. Custom form factor (sizes) as well as color and monochrome camera 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.

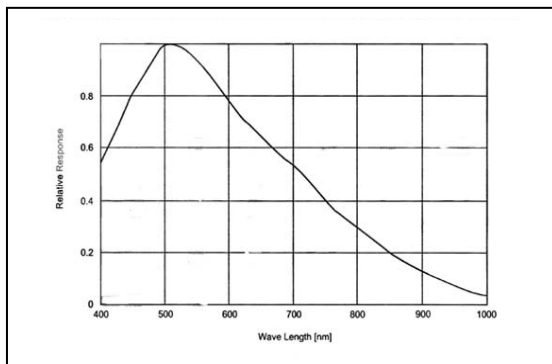
Performance Features

- High quality CCD sensor
- Excellent sensitivity with high color reproductivity
- Color or monochrome, interline transfer progressive scan, 1.4 megapixel CCD sensor
- High-speed USB 2.0 (480Mbits/sec)
- 15 fps at full 1392x1040 resolution
30 fps 640x480
- Binning and Region of Interest (ROI) options improve sensitivity and provide higher frame rates
- Global shutter for capturing fast moving objects and strobe lighting
- 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
- Full one (1) year warranty

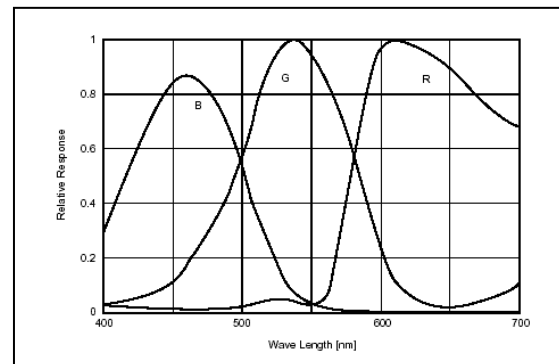
Specifications

Lu130/Lu135

Image Sensor	1/2" format, color or mono, 6.5mm x 4.8mm array
Effective Pixels	1392x1040, 4.65um square pixels
Frame Rate	15 fps at 1392x1040, 30 fps with binning (2x - 4x)
Sensitivity	High
Dynamic Range	60dB
White balance	Manual
Exposure	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	External 6VDC, 800mA (included)
Power Consumption	~4 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)



Mono Response Curve



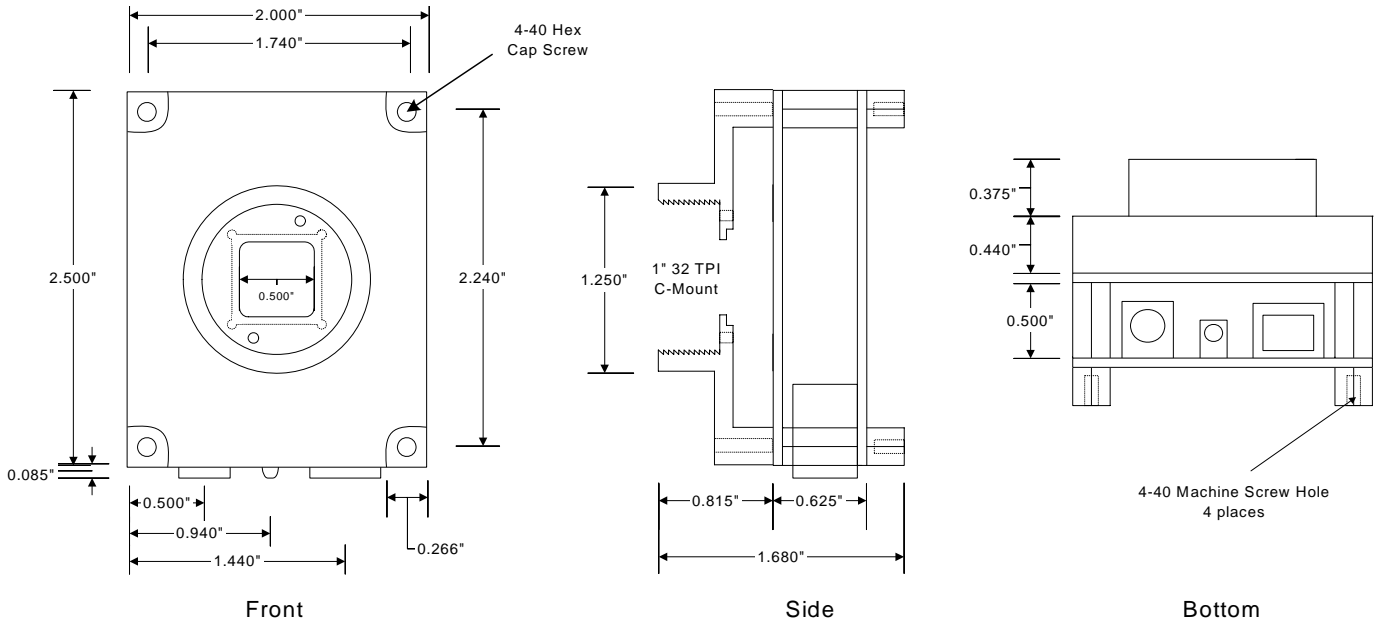
Color Response Curve

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

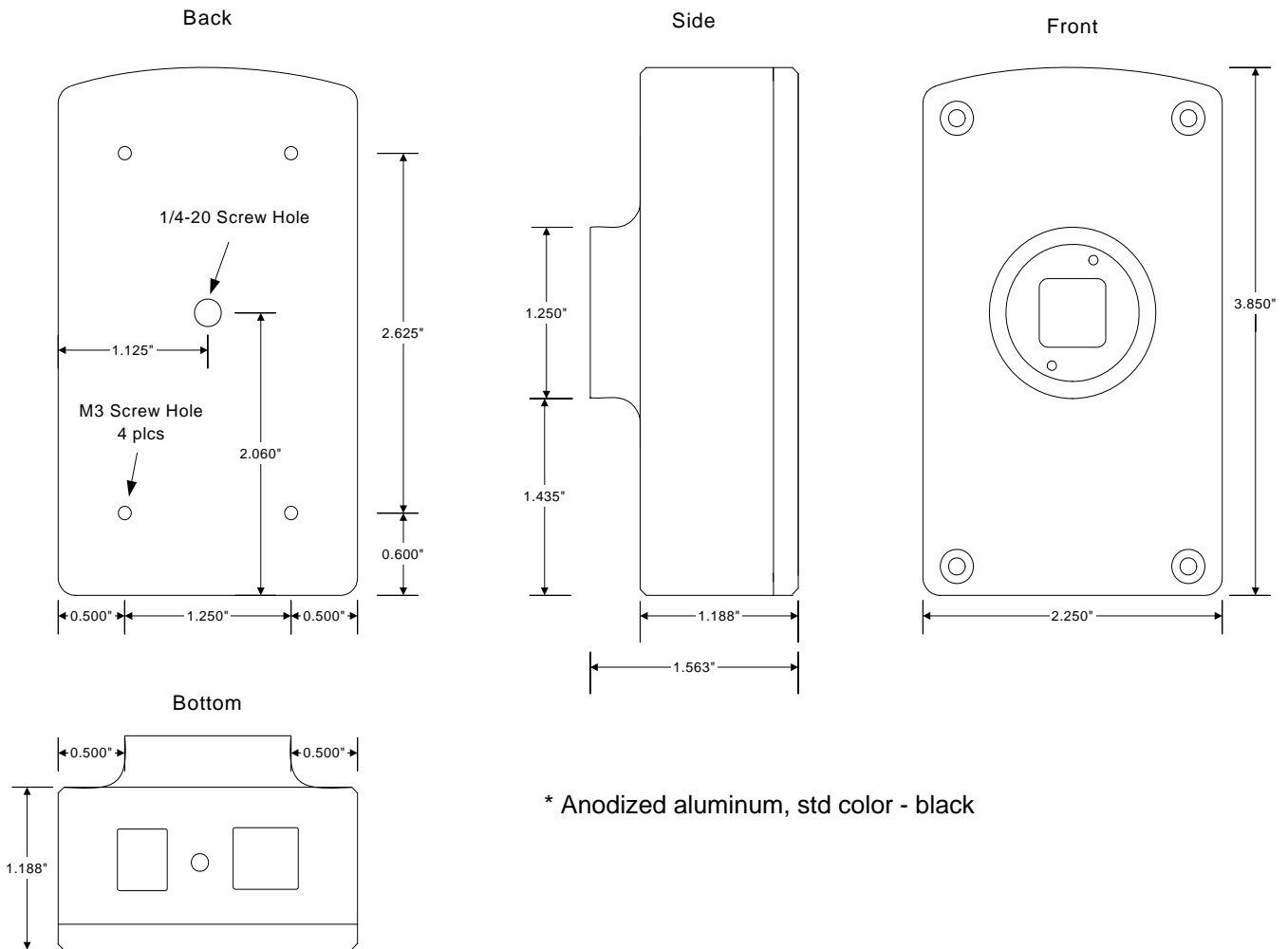
Ordering Information

Lu130M	- Monochrome Camera Module
Lu130C	- Color Camera Module
Lu135M	- Enclosed Monochrome Camera
Lu135C	- Enclosed Color Camera
LuSDK	- Developer's Kit and Accessories

OEM Board-Level Camera



Enclosed Camera*



* Anodized aluminum, std color - black