

Outline

Lumenera's Lu620 series of multi-megapixel cameras are designed to be used in a wide variety of applications where high-resolution detail is required. Both color and monochrome models are available.

With 3000x2200 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 USB2.0 digital interface. No frame-grabber is required. Advanced camera control is available through a complete Software Developer's Kit, with sample code available to quickly integrate camera functions into OEM applications.

Hardware and software based synchronization trigger is provided standard. On-board memory is available for frame buffering. Lu620 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.

Features

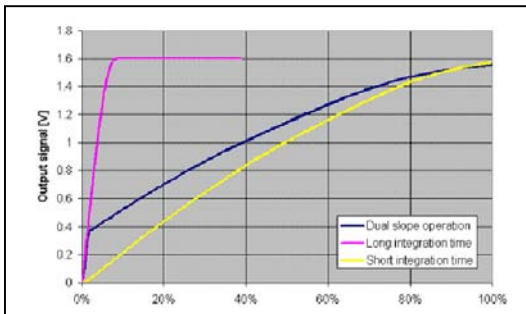
- High dynamic range sensor using multi-slope integration
- Color or monochrome, progressive scan, 6.6 megapixel sensor
- High speed USB2.0 (480Mbps/sec)
- 3 fps at full 3000 x 2200 resolution
- Higher frame rate at lower resolution with full sub-window control
- Rolling electronic shutter
- GPIOs for 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, power and full camera control over a single USB cable
- C-Mount provided
- Direct Show compatible
- USB cameras are software compatible with all Windows Operating Systems
- Complete SDK available.

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

Specifications

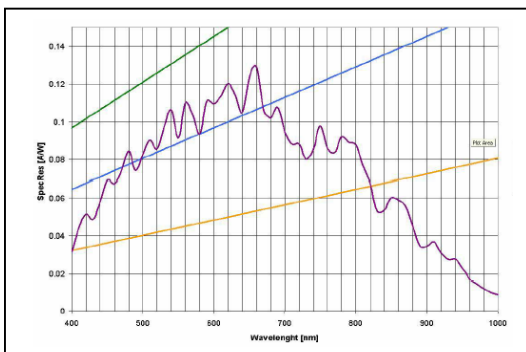
Lu620

Image Sensor	2/3" format, color or mono, 7.8mm x 10.5mm array
Effective Pixels	3000 x 2200, 3.5um square pixels
Frame Rate	3 fps at 3000x2200, faster frame rates with ROI
Dynamic Range	56dB Rolling Shutter ~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 6VDC, 500mA
Power Consumption	~2.5Watts
Operating Temperature	-10° C to +50° C
Operating Humidity	20%-80%, Non-condensing
Interface Connector	Standard USB
Lens Mount	C-Mount
Frame Buffer	Optional expansion to 2 frames



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.



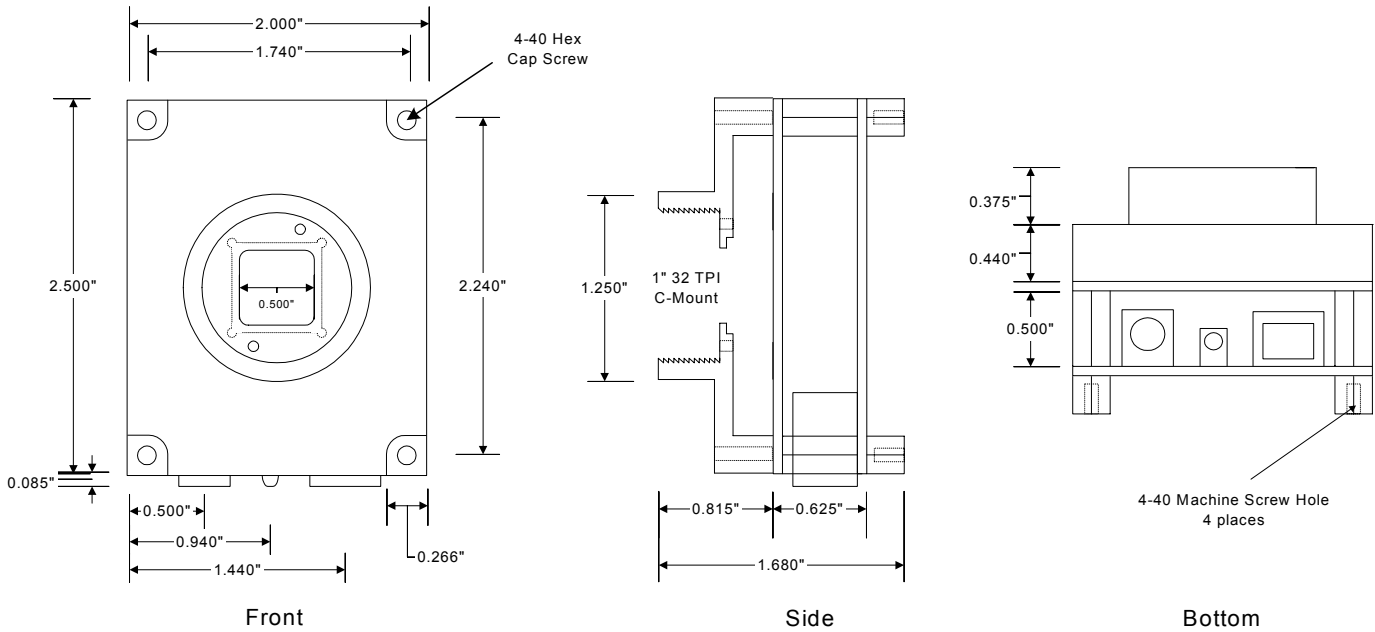
Monochrome Response Curve

Ordering Information

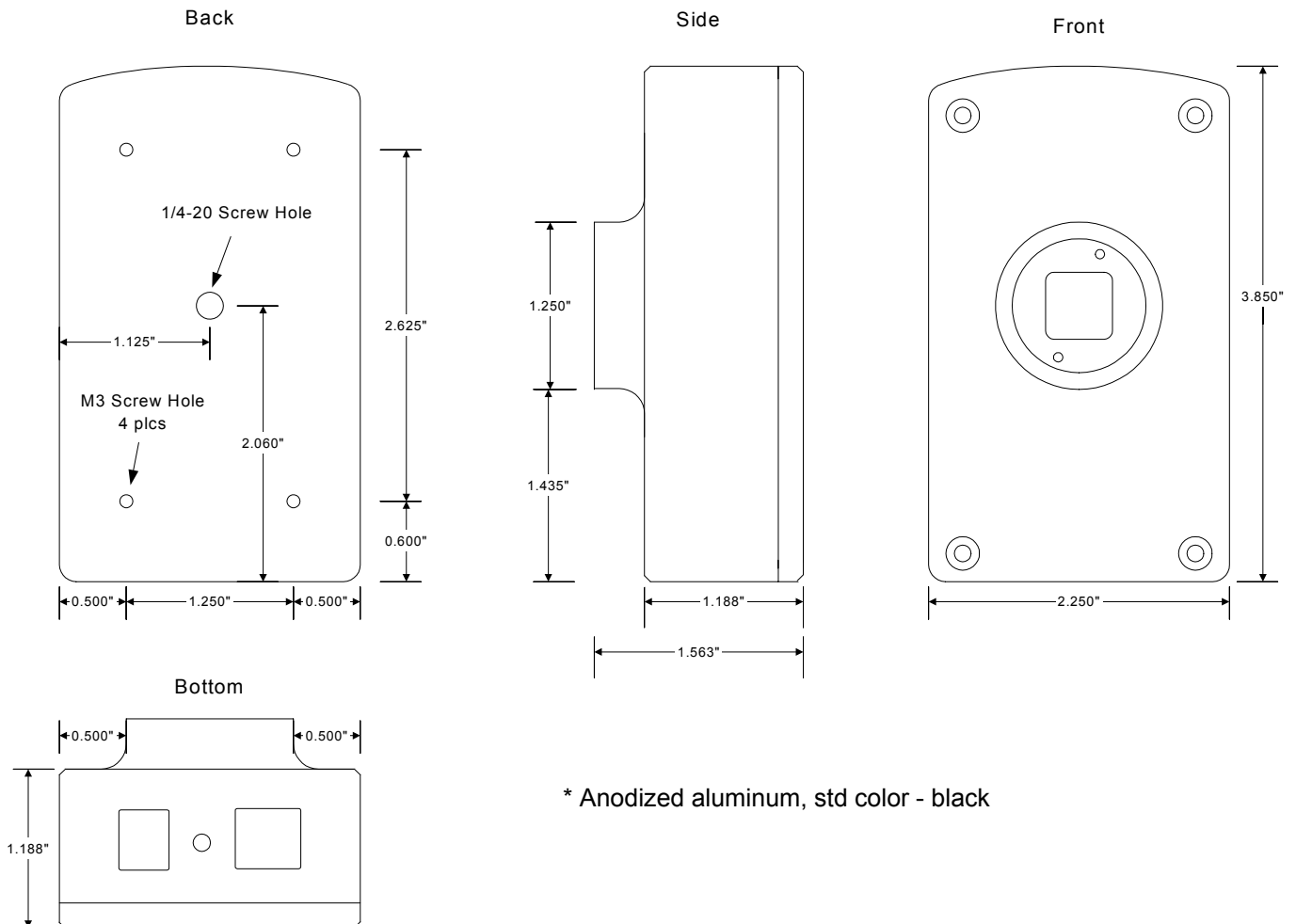
- Lu620M – Monochrome Camera Module
- Lu620C – Color Camera Module
- Lu625M – Enclosed Monochrome Camera
- Lu625C – Color Camera Module
- LuSDK – Software Developer's Kit

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OEM Board-Level Camera



Enclosed Camera



* Anodized aluminum, std color - black