

**1.3 Megapixel USB 2.0 Camera****Outline**

Lumenera's Lu100 and Lu105 series of megapixel cameras are designed to be used in a wide variety of applications.

With 1280x1024 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. These monochrome cameras are available as either enclosed (Lu105) or board-level (Lu100). Contact us for more information regarding custom form factors.

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. Full one (1) year warranty included.

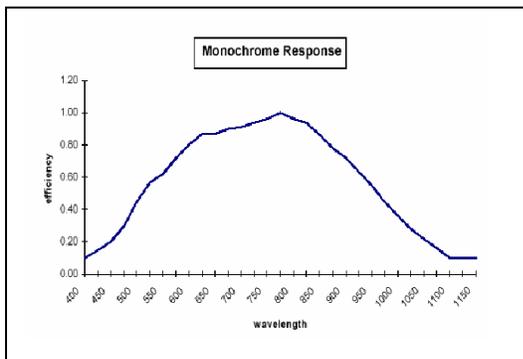
**Performance Features**

- Monochrome, progressive scan, 1.3 megapixel sensor**
- High-speed USB 2.0 (480Mbits/sec)**
- 15 fps at full 1280x1024 resolution  
30 fps at 640x480 (sub-sampled)**
- Stable, reliable camera drivers for running multiple cameras on a PC or other USB devices**
- Higher frame rate in sub-sampled mode**
- Full sub-window control**
- Auto exposure**
- Snapshot mode for use with strobe**
- GPI/Os for control of peripherals and synchronization of lighting (4in/4out)**
- FCC Class B, CE Ready**
- Select 8 or 10-bit pixel data**
- Simplified cabling - video, power and full camera control over a single USB cable**
- DirectShow compatible**
- C-Mount provided**
- USB cameras are software compatible with Windows™ XP, Windows Vista and Windows 7, 32 and 64-bit operating systems**
- Complete SDK available**

# Specifications

# Lu100 / Lu105

Image Sensor	<b>1/2" format, mono, 6.6 x 5.3 mm array</b>
Effective Pixels	<b>1280 x 1024, 5.2 <math>\mu\text{m}</math> square pixels</b>
Frame Rate	<b>15 fps at 1280 x 1024, 30 fps at 640 x 480 (sub-sampled)</b>
Sensitivity	<b>1.0 V /Lux-sec</b>
Dynamic Range	<b>60dB</b>
Exposure	<b>Auto</b>
Dimensions (W x H x D)	<b>2.00 x 2.50 x 1.63 inch (board level)</b> <b>2.25 x 3.85 x 1.56 inch (enclosed)</b>
Mass	<b>~150g / 300g</b>
Power Requirement	<b>USB bus power, or external 6 V DC, 500 mA (optional)</b>
Power Consumption	<b>~2.5 W</b>
Operating Temperature	<b>0 to +50 °C</b>
Operating Humidity	<b>0 to – 95 %, non-condensing</b>
Interface Connector	<b>Standard USB cable</b>
Lens Mount (Lens not included)	<b>C-Mount (CS-Mount option)</b>



## Ordering Information

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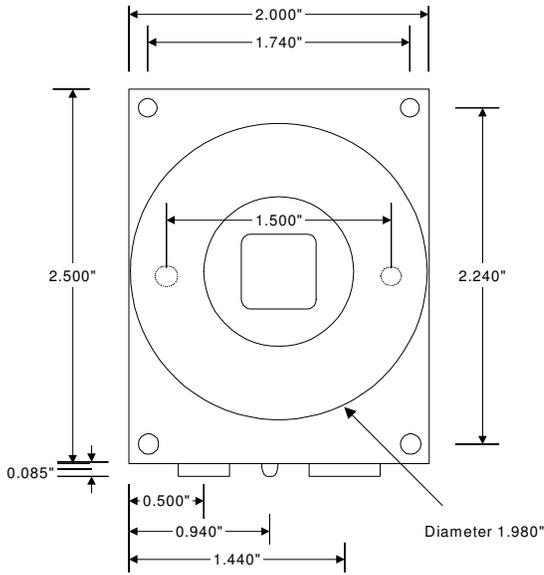
Lu100M	– Monochrome Camera Module
Lu105M	– Enclosed Monochrome Camera
LuSDK	- Software Developer's Kit

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

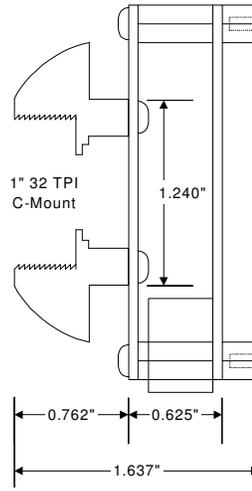
# Mechanicals

# Lu100 / Lu105

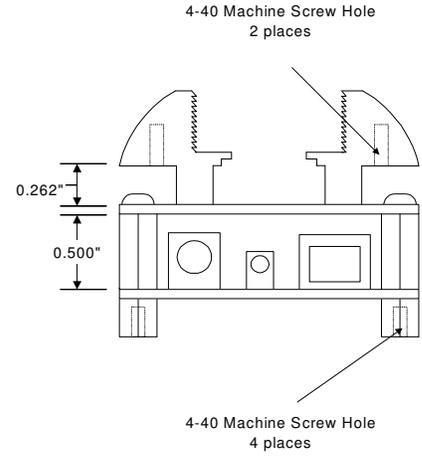
## OEM Board-Level Camera



Front



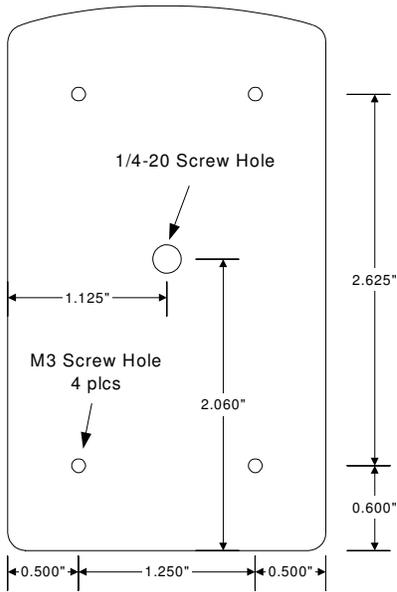
Side



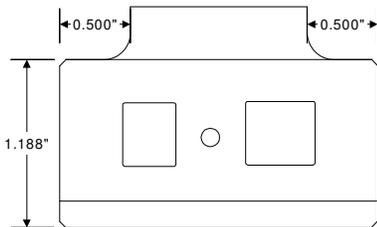
Bottom

## Enclosed Camera

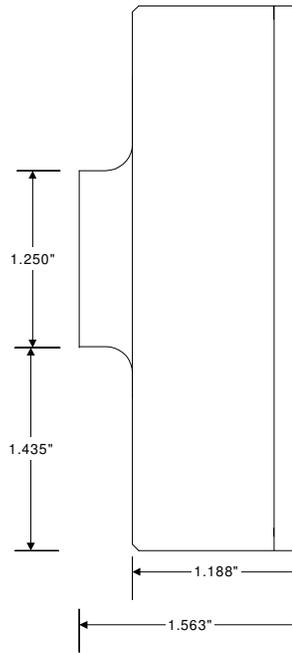
Back



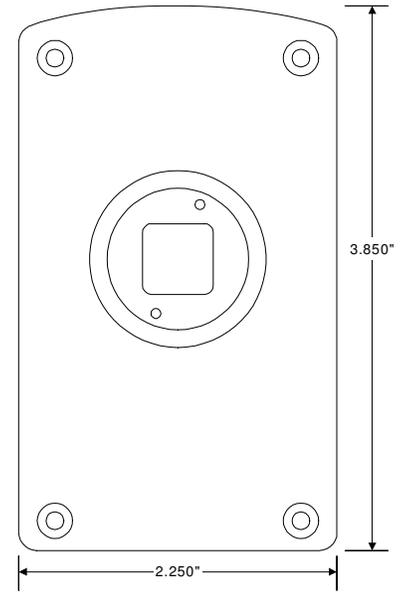
Bottom



Side



Front



\* Anodized aluminum, std color - black