Lu160

USB2 Megapixel Camera

Outline

Lumenera's Lu160 series of megapixel cameras are designed to be used in a wide variety of applications, particularly in low-light conditions and where high dynamic range is required. Both color and monochrome product models are available.

With 1360x1024 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. Lu160 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

- ❑ **Highest quality CCD sensor**

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

- ❑ **Color or Monochrome, Interline, Progressive scan, 1.4 Megapixel sensor**

- ❑ **High speed USB2.0 (480Mbits/sec)**

- ❑ **10 fps at full 1360 x 1024 resolution 30 fps 640x480 (binned)**

- ❑ **Binning options improve sensitivity and provide higher frame rates**

- ❑ **Global shutter for capturing fast moving objects**

- ❑ **GPI/Os for control of peripherals and synchronization of lighting (4in/4out)**

- ❑ **FCC Class B, CE Ready**

- ❑ **Select 8 or 12-bit pixel data**

- ❑ **Simplified cabling - video and full camera control over a single USB cable**

- ❑ **C-Mount provided**

- ❑ **Direct Show compatible**

- ❑ **USB cameras are software compatible with Windows™ 98 SE, Windows Me, Windows 2K and Windows XP operating systems**

- ❑ **Complete SDK available.**

Specifications   Lu160

Image Sensor	**2/3" format, color or mono, 10.2mm x 8.3mm array**
Effective Pixels	**1360 x 1024, 6.45um square pixels**
Frame Rate	**10 fps at 1280x1024, 30 fps at 640x480 (binned)**
Sensitivity	**High**
Dynamic Range	**72dB**
Exposure	**Manual**
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	**External 6VDC, 800mA (included)**
Power Consumption	**~6.0 Watts**
Operating Temperature	**0° C to +50° C**
Operating Humidity	**20%-80%, Non-condensing**
Interface Connector	**Standard USB**
Lens Mount	**C-Mount**
Frame Buffer	**1 frame buffer (optional expansion to 12 frames)**
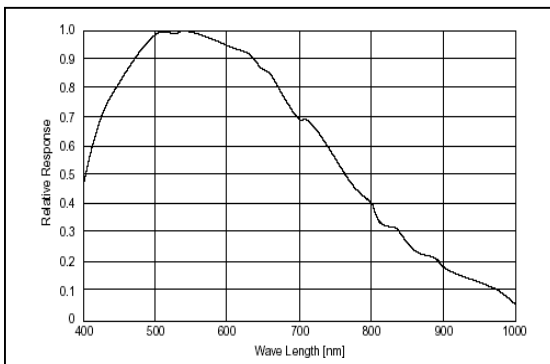
Mono Response Curve
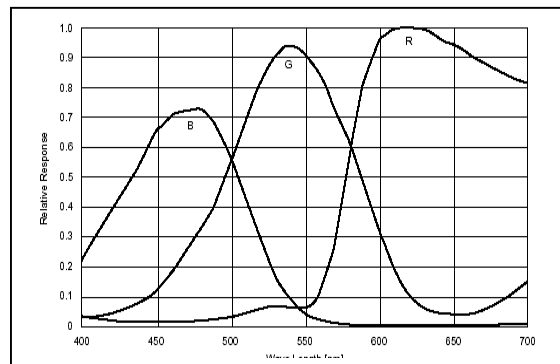
Color Response Curve

Full customization available to meet your exact needs!

Ordering Information

Lu160M	– Monochrome Camera Module
Lu160C	– Color Camera Module
Lu165M	– Enclosed Monochrome Camera
Lu165C	– Enclosed Color Camera
LuSDK	– Software Developer's Kit

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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_{Ba}

Side

Front

1/4-20 Screw Hole
1.125"
M3 Screw Hole 4 plcs
2.625"
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"
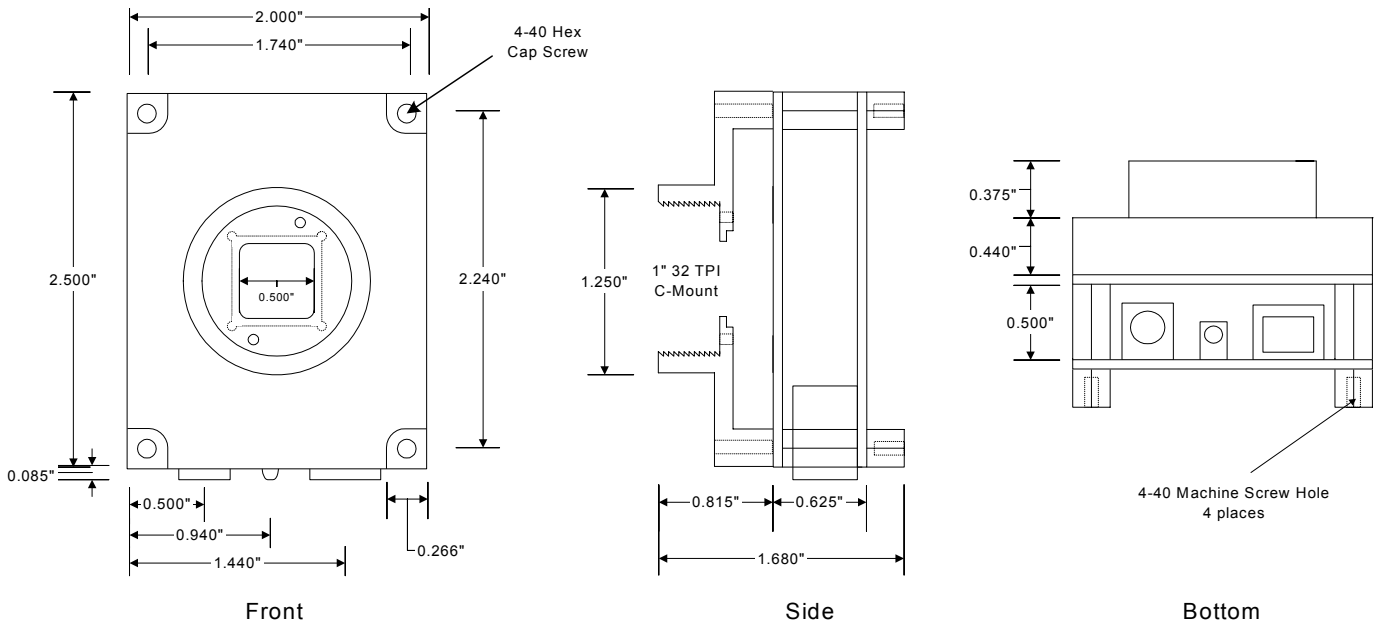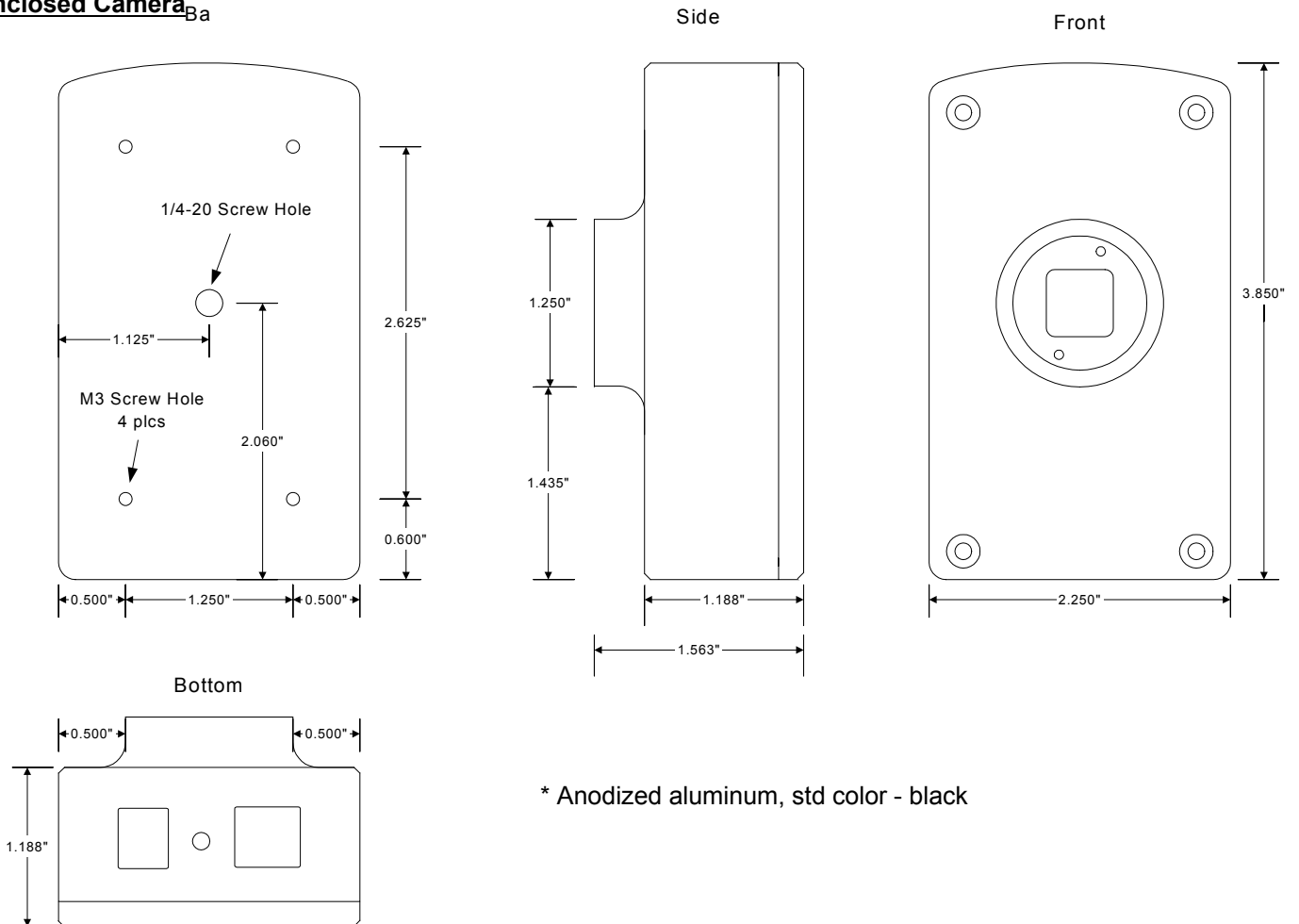
* Anodized aluminum, std color - black