



Outline

Lumenera's new Lm165 mini CCD USB 2.0 megapixel cameras are designed to be used in a wide variety of industrial and scientific applications, particularly those with low-light conditions where high dynamic range is required, and with tight space constraints.

Measuring 44x44x56mm, these compact cameras offer the same performance as our enhanced USB 2.0 camera line, delivering outstanding image quality and value. Features include new industrial locking USB and GPI/O connector, multiple mounting points, 15 fps at full 1392x1040 resolution, 30 fps 640x480 binning mode, and on-board processing. Both color and monochrome product models are available.

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 and strobe lighting.

Uncompressed images in live streaming video and still image capture are provided across a mini 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. 32 MB on-board memory is available for frame buffering.

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.

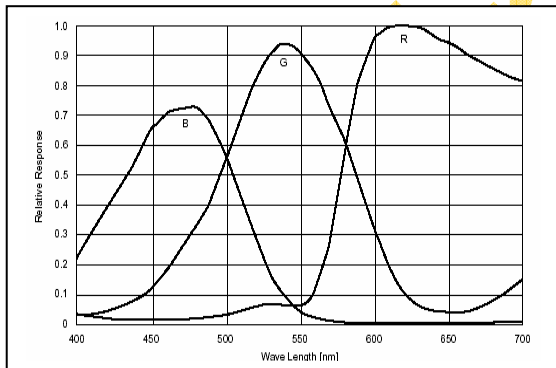
Performance Features

- ❑ **Small form factor measuring 44x44x56mm**
- ❑ **Highest quality CCD sensor with electronic global shutter**
- ❑ **Locking industrial USB and GPI/O connector for control of peripherals and synchronization of lighting (1in/1out)**
- ❑ **3 software configurable bidirectional I/O ports**
- ❑ **Based on Lw camera platform with 32 MB RAM**
- ❑ **Excellent sensitivity with high color fidelity**
- ❑ **Simplified cabling – video, power and full camera control over a single mini USB cable**
- ❑ **Color or monochrome, Interline transfer progressive scan CCD, 1.4 megapixel sensor**
- ❑ **8 mounting points**
- ❑ **Binning and Region of Interest (ROI) options improve sensitivity and provide higher frame rates**
- ❑ **FCC Class B, CE Ready**
- ❑ **Select 8 or 12-bit pixel data**
- ❑ **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**

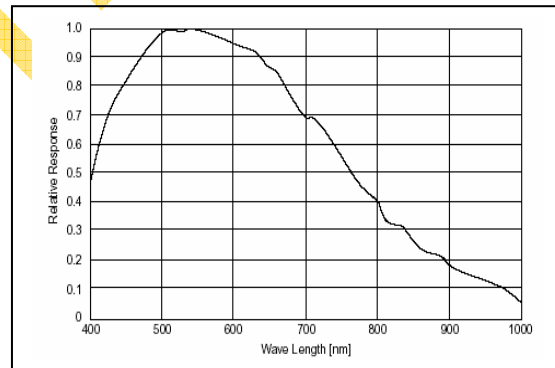
Specifications

Lm165

Image Sensor	2/3" format, color or mono, 9.0mm x 6.7mm array
Effective Pixels	1392 x 1040, 6.45µm square pixels
Frame Rate	15 fps at 1392 x 1040, 30 fps at 640x480 (binned or ROI)
Sensitivity	Extremely High
Dynamic Range	66dB
Exposure	Manual
White Balance	Auto / Manual
Dimensions (W x H x D)	44x44x56mm
Mass	TBD
Power Requirement	USB bus power or external 5VDC, 500mA
Power Consumption	~2.5 Watts
Operating Temperature	0°C to +50°C
Operating Humidity	5% - 95%, Non-condensing
Interface Connector	Standard mini USB & locking industrial USB & GPIO connector
Lens Mount (Lens not included)	Adjustable C-Mount (CS-Mount option)



Color Response



Monochrome Response

Full customization available to meet your exact needs!

Available Options:

- Without Standard IR-Cut Filter
- Without Glass
- Without Mount
- Board Level
- Adjustable CS-Mount

Contact us for more specific details.

Ordering Information

- Lm165C – Mini Enclosed Color Camera
- Lm165M – Mini Enclosed Monochrome Camera
- LuSDK – Software Developer's Kit