Lw110 & Lw115

1.3 Megapixel USB 2.0 Camera

High Dynamic Range in Low Light Conditions

Lumenera Lw110 and Lw115 megapixel cameras are designed for use in a wide variety of industrial applications requiring high resolution and modest cost. With 1280 x 1024 resolution and on-board processing these cameras deliver outstanding image quality and value.

Live Stream and Still Image Capturing

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, with sample code available to quickly integrate camera functions into OEM applications.

Customizable Form Factors

Hardware and software based synchronization trigger is provided standard. Camera models are offered in both enclosed (Lu115) and board-level (Lu110) form. Custom form factor (sizes) models are also available.
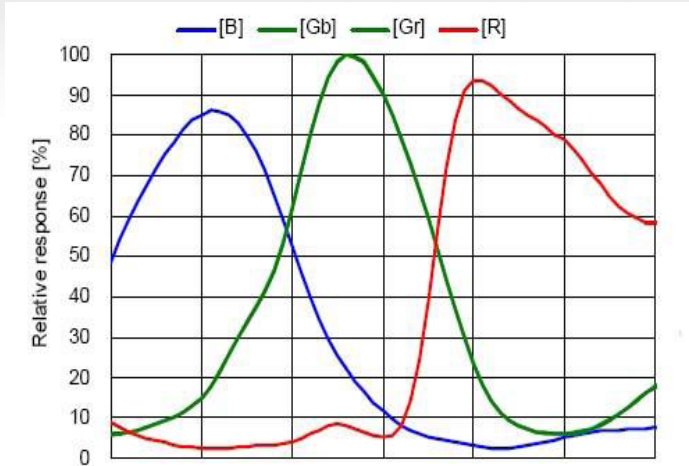
Application

The Lumenera Camera SDK provides a full suite of features and functions that allow you to maximize the performance of your camera within your application. The SDK is compatible with all USB and GigE based cameras. Microsoft DirectX/DirectShow, Windows API and .NET API interfaces are provided allowing you the choice of application development environments from C/C++ to VB.NET or C#.NET. Full inline IntelliSense autocompletion and documentation is provided with the .NET API interface and is accompanied by a full API manual describing all the camera functions and properties.
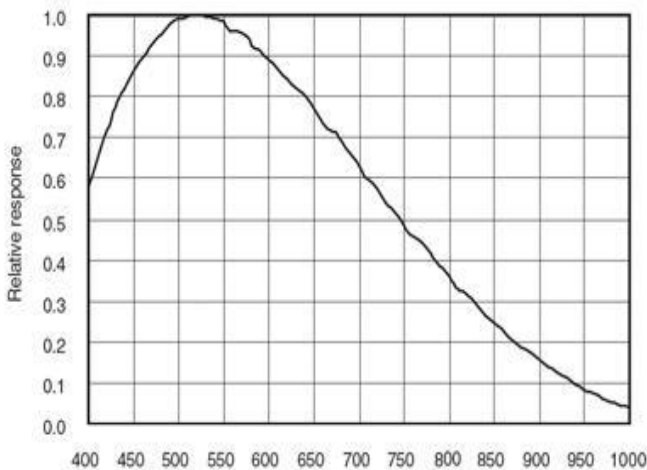
Features

- Lower fixed pattern noise

- GPI/O for control of peripherals and synchronization of lighting (4in/4out) a standard feature

- Stable, reliable camera drivers for running multiple cameras on a PC or other USB devices

- Color, progressive scan, 1.3 megapixel image sensor

- 30 fps at full 1280 x 1024 resolution 60 fps at 640 x 480 resolution

- Auto white balance, auto exposure

- Snapshot mode for use with strobe

- RGB Bayer or monochrome video output

- Select 8 or 12-bit pixel data

- Simplified cabling - video, power and full camera control over a single USB cable

- Adjustable C-mount provided

- DirectShow compatible

- Software compatible with Windows 10, Windows 8.1, Windows 7, Linux, 32 and 64-bit operating systems

- Complete SDK available

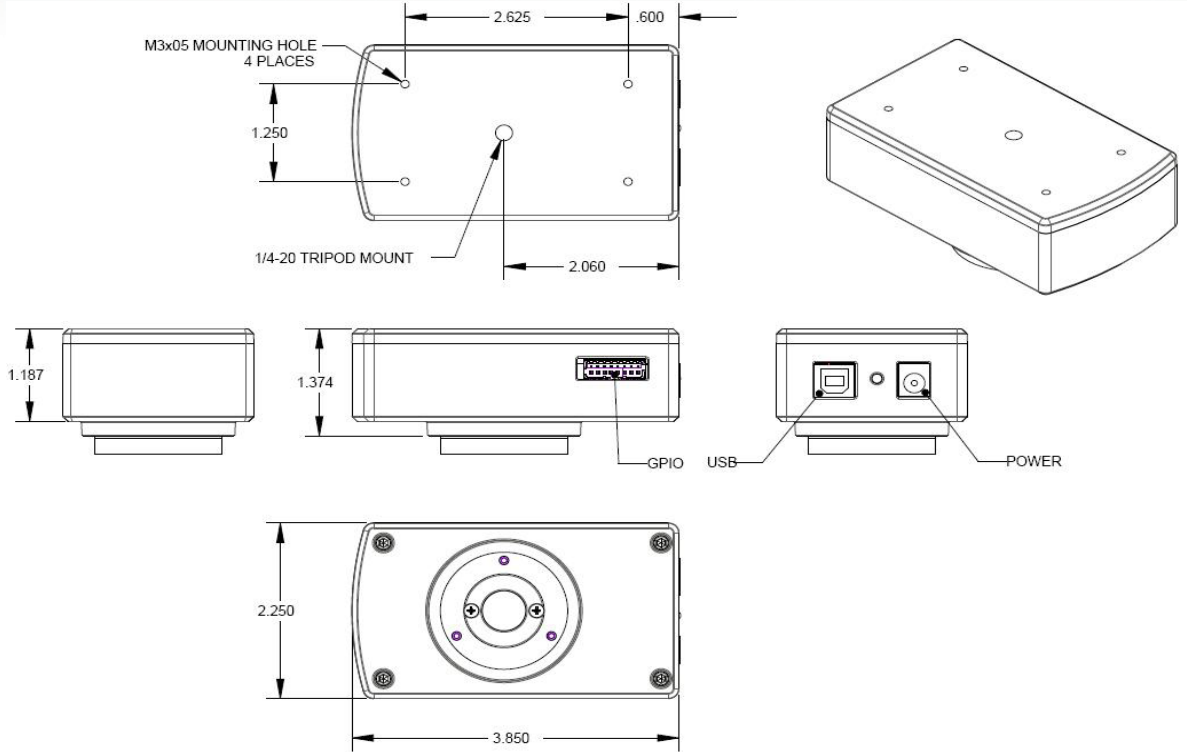- Four (4) year warranty

Color Quantum Efficiency Curves

Monochrome Quantum Efficiency Curve

Sensor Specifications	
Image Sensor	Sony IMX035, CMOS, color or mono, progressive scan
Optical Format	1/3"
Imager Size	Diagonal 6.08 mm
Pixel Size	3.63 x 3.63 um
Resolution	1280 x 1024 pixels
Camera Specifications	
Frame Rate	30 fps @1280x1024, 60 fps @ 640x480
Bit Depth	8 or 12-bits
Exposure Control	Manual and automatic control
White Balance	Manual and automatic control
Camera Characteristics	
Sensitivity	High
Dynamic Range	60 dB
Mechanical Specifications	
Data Interface	Standard USB cable
Lens Mount	Adjustable C-mount standard, (CS-mount option)
Dimensions (HxWxD)	39.62 x 57.15 x 96.52 mm (enclosed) 1.56 x 2.25 x 3.8 inch (enclosed)
Mass	300 g (enclosed)
Operating Temperature	0 to 50 °C
Storage Temperature	-30 to 70 °C
Operating Humidity	5 to 95 %, non condensing
Shock / Vibration	50 g shock, 5 g (2 to 200 Hz) vibration
Onboard Memory	Camera has onboard non-volatile memory storage
Camera Software	
Operating Systems	Windows 10, Windows 8.1, Windows 7, Linux, 32 and 64-bit operating systems
Software Interfaces	Windows API, .NET, DirectX
Power and Emissions	
Power Consumption	~2.5 W
Power Requirement	USB bus power, or external 5 V DC, 500 mA
Emissions Compliances	FCC Class BE, CE Certified
Hazardous Materials	RoHS, WEEE Compliant
Warranty	Four (4) year
System Requirements	
Recommended PC Specs	• Pentium 4, 1.3 GHz or higher • 512 MB RAM • 60 MB hard drive free space or more • USB 2.0 Port • Windows 10, 8.1, 7; Linux
Ordering Options	
Lw110C	1.4 Megapixel Color Camera Module (Board Level)
Lw115C	1.4 Megapixel Enclosed Color Camera
LuSDK	Software Developer's Kit (Web download)
La050315	Transformer, 5VDC, 15W, 3A, International
Camera Includes	
Lu802	2M USB 2.0 A to B cable
Customization Options	
-WOIR	Without IR Cut Filter (in optical path)
-CS	With Adjustable CS-mount lens mount

Enclosed Mechanical Drawings

Board Level Mechanical Drawings