

Lw570 & Lw575

5.0 Megapixel USB 2.0 Camera



High Resolution Images

Lumenera's Lw570 and Lw575 series of megapixel cameras are designed to be used in a wide variety of applications, particularly where high resolution is required. With 2592 x 1944 resolution and on-board processing these cameras deliver outstanding image quality and value for industrial and security imaging applications.

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 color enclosed (Lw575) and board-level (Lw570) form. Custom form factor (sizes) camera models are available.

Application

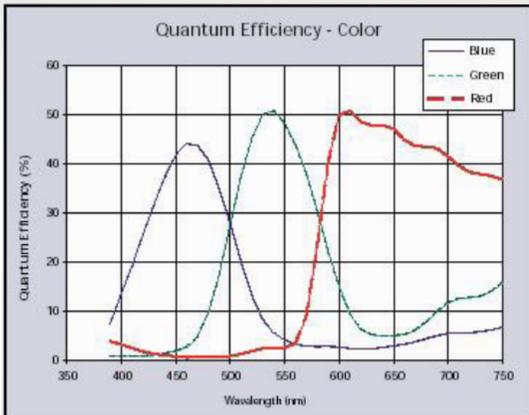
The Lumenera Camera SDK provides a full suite of features and functions that allow you to maximize the performance of your camera within your application. The SDK is compatible with all USB and GigE based cameras. Microsoft DirectX/DirectShow, Windows API and .NET API interfaces are provided allowing 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

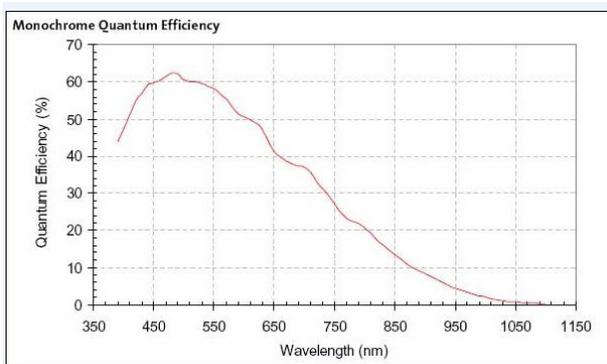
- 5.0 megapixel, color and monochrome, progressive scan sensor
- Stable, reliable camera drivers for running multiple cameras on a PC or other USB devices
- 7 fps at full 2592 x 1944 resolution, 60 fps at VGA resolution with full sub-window control
- Auto white balance & auto exposure
- Snapshot mode for use with strobe
- GPIOs for control of peripherals and synchronization of lighting (4in/4out)
- FCC Class B, CE Ready
- RGB Bayer 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
- Software compatible with Windows 10, Windows 8.1, Windows 7, Linux, 32 and 64-bit operating systems
- Complete SDK available
- Dedicated I/O available
- Four (4) year warranty



Color Quantum Efficiency Curves



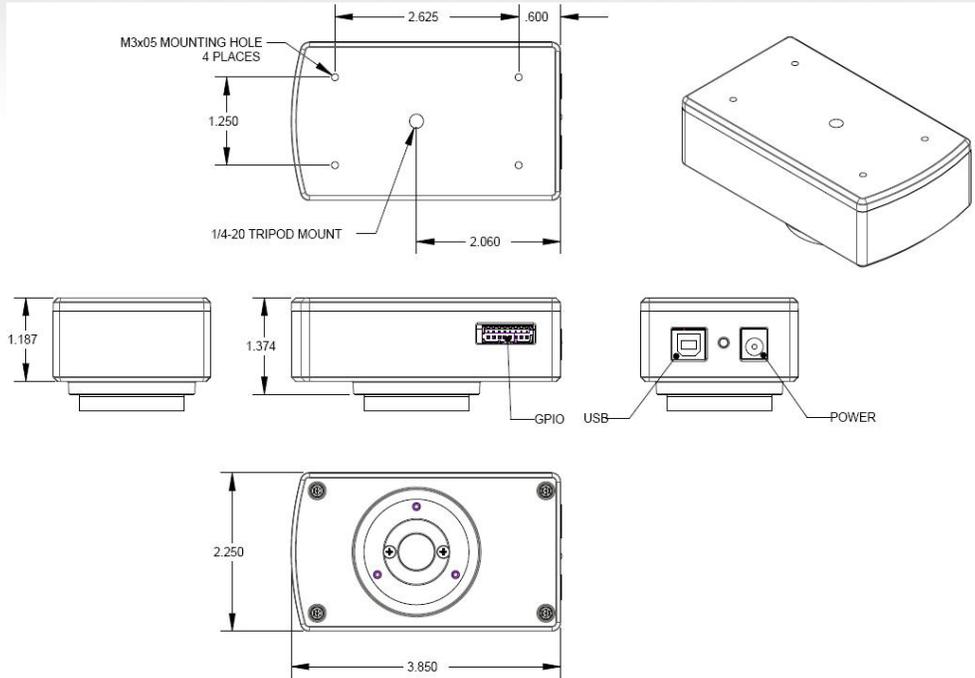
Monochrome Quantum Efficiency Curve



Sensor Specifications	
Image Sensor	Micron MT9P031, CMOS, color or mono progressive scan
Optical Format	1/2.5"
Imager Size	Diagonal 7.13 mm
Pixel Size	2.2 x 2.2 um
Resolution	2592 x 1944 pixels
Region of Interest Control	Any multiple of 8x8 pixels, 32x32 pixels minimum
Camera Specifications	
Frame Rate	7 fps @ 2592x1944, 23 fps @ 640x480
Bit Depth	8 or 12-bits
Binning Modes	2 x 2 and 4 x 4
Exposure Control	Manual and automatic control
Exposure Range	106us to 3s (video), 106us to 3s (snapshot)
Gain Control	Manual and automatic control
Gain Range	1 to 25.6 x
White Balance	Manual and automatic control
Camera Characteristics	
Sensitivity	1.4 V/lux-sec (550nm)
Dynamic Range	60 dB
Full Well Capacity	15,000 e-
Quantum Efficiency	47% (green peak), 62% (mono peak)
Read Noise	20 e-
Dark Current Noise	<8e-/s @ 22 °C
Mechanical Specifications	
Data Interface	USB 2.0
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	<ul style="list-style-type: none"> • 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	
Lw570M	5.0 Megapixel Monochrome Module (Board Level)
Lw570C	5.0 Megapixel Color Module (Board Level)
Lw575M	5.0 Megapixel Enclosed Monochrome Camera
Lw575C	5.0 Megapixel Enclosed Color Camera
LuSDK	Software Developer's Kit (Web download)
La050300	5 V DC power supply
Camera Includes	
Lu802	2M USB 2.0 A to B cable



Enclosed Mechanical Drawings



Board Level Mechanical Drawings

