

Lg11059

High Resolution 10.7 Megapixel
GigE Camera



High Resolution CCD Sensor with Global Shutter

Lumenera's progressive scan Lg11059 digital camera is ideally suited for rugged 24/7 use. A high resolution CCD sensor, fully global electronic shutter capturing high-speed images with zero blur, and a completely integrated Canon EF lens controller (void of external cabling) position this camera an ideal solution for traffic monitoring, as well as flat panel inspection and pathology.

High Quality Images for Difficult Lighting Environments

This camera utilizes its high quality CCD sensor to its maximum by providing either vivid color or very sensitive visible light and near IR monochromatic images. Full streaming of uncompressed video along with still image captures are easily controlled through our standard API interface or through the GigE Vision interface. Region of interest and binning modes allow the camera to run at faster frame rates (14 fps at 640 x 480 resolution) while only providing the image data you need. Image capture synchronization is achieved using either a hardware or software trigger and is complemented by 32 MB of on board memory for frame buffering to ensure image delivery.

Plug-and-Play with No Framegrabber

The compact design of the Lg11059, measuring 76.2 x 76.2 x 82.6 mm, makes it ideal for installation in small spaces or compact enclosures. The fully locking Gigabit Ethernet cabling, power connector and digital I/O interface ensure a simple plug-and-play installation, minimizing camera clutter with only one standard cable. No framegrabber is required. Simplified I/O cabling is provided through a locking Hirose connector supporting 4 output and 3 input ports that can be automatically or manually controlled through software.

Maximize Camera Performance Within Your Own Application

The Lumenera Camera SDK provides a full suite of features and functions that allow you to maximize the camera's performance within your own vision 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.

Superior Technical Assistance Center

All Lumenera cameras are supported by an experienced team of technical support and imaging experts. We understand your imaging needs and are here to help you get the most out of your camera.

Features

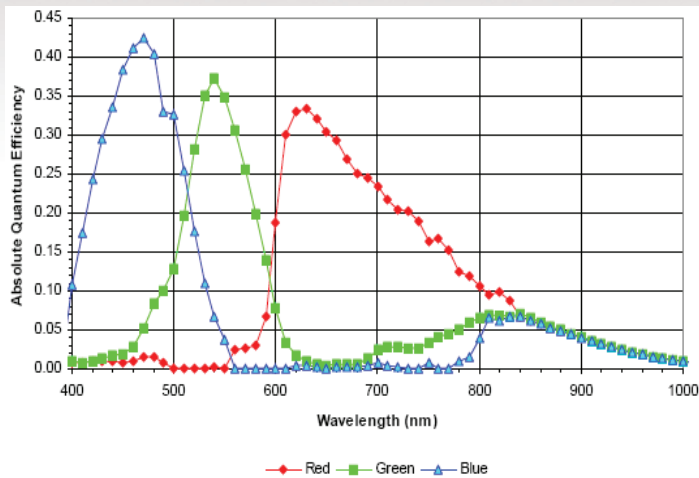
- Fully integrated Canon EF lens controller
- Small form factor measuring 76.2 x 76.2 x 82.6 mm
- High quality Kodak KAI-11002 CCD sensor
- Color or monochrome, interline transfer, progressive scan 10.7 MP CCD sensor
- GigE Vision compliant for fast data transfer (1000 Mbps)
- Locking industrial GigE port, power and Hirose GPI/O connector for control of peripherals and synchronization of lighting
- 4 output and 3 input, software configurable I/O ports
- 32 MB RAM frame buffer
- Excellent sensitivity
- Simplified cabling - video, and full camera control over a GigE network allowing for 100M cable lengths
- 8 mounting points and 2 tripod (1/4" - 20) mounts
- Binning improves sensitivity and Region of Interest (ROI) provides higher frame rates
- FCC Class B, CE Certified
- Select 8 or 14-bit pixel data
- DirectX/DirectShow and GigE Vision 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



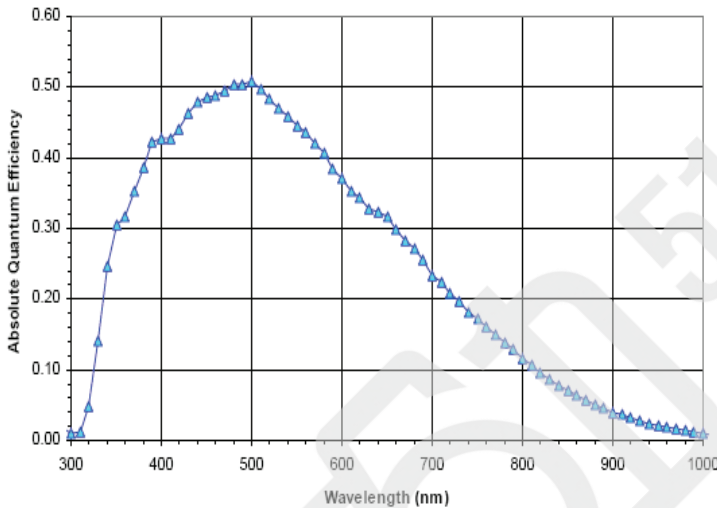
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Color Quantum Efficiency Curves



Monochrome Quantum Efficiency Curve



Ordering Options

Lg11059M	10.7 Megapixel Monochrome Enclosed Camera
Lg11059C	10.7 Megapixel Color Enclosed Camera
LuSDK	Software Developer's Kit (Web Download)

Camera Includes

La21224L	12 V DC, 2 A locking power supply
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Customization Options

-WOIR	Without IR cut filter (in optical path)
-WIR	With IR cut filter (in optical path)
-WOCG	Without sensor cover glass
-WOML	Without sensor pixel micro lenses

Sensor Specifications

Image Sensor	Kodak KAI-11002, CCD, color or mono, progressive scan
Optical Format	35 mm
Active Area	37.25 x 25.70 mm
Pixel Size	9.0 x 9.0 μ m
Resolution	4008 x 2672 pixels
Region of Interest Control	Any multiple of 8 x 8 pixels, 8 x 8 pixels minimum

Camera Specifications

Frame Rate	5 fps at full resolution, 14 fps at 640 x 480 (with ROI)
Bit Depth	8 or 14-bit
Binning Modes	2 x 2
Exposure Control	Manual and automatic control
Exposure Range	85 μ s to 198 ms (video), 1 μ s to 67.11 s (snapshot)
Gain Control	Manual and automatic control
Gain Range	1 to 30.8 x
White Balance	Manual and automatic control
Trigger Modes	Hardware and software triggerable

Camera Characteristics

Sensitivity	Excellent
Dynamic Range	66 dB
Pixel Well Depth	60,000 e-
Quantum Efficiency	>50 % peak (absolute)
Read Noise	30 e-
Dark Current Noise	<50 mV/s at 20 $^{\circ}$ C

Mechanical Specifications

Data Interface	GigE (1000baseT), locking Ethernet connector
General Purpose I/O	Locking Hirose connector
Lens Mount	Canon EF mount
Dimensions (HxWxD)	76.2 x 76.2 x 82.6 mm 3.0 x 3.0 x 3.25 inch
Mass	~850 g
Operating Temperature	0 to 50 $^{\circ}$ C
Storage Temperature	-30 to 70 $^{\circ}$ C
Operating Humidity	5 to 95 %
Shock / Vibration	50 G shock, 5 G (2-200Hz) 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, GigE Vision

Power and Emissions

Power Consumption	~7.2 W
Power Requirement	12 V DC
Emissions Compliances	FCC Class B, CE Certified
Hazardous Materials	RoHS, WEEE Compliant
Warranty	Four (4) year

System Requirements

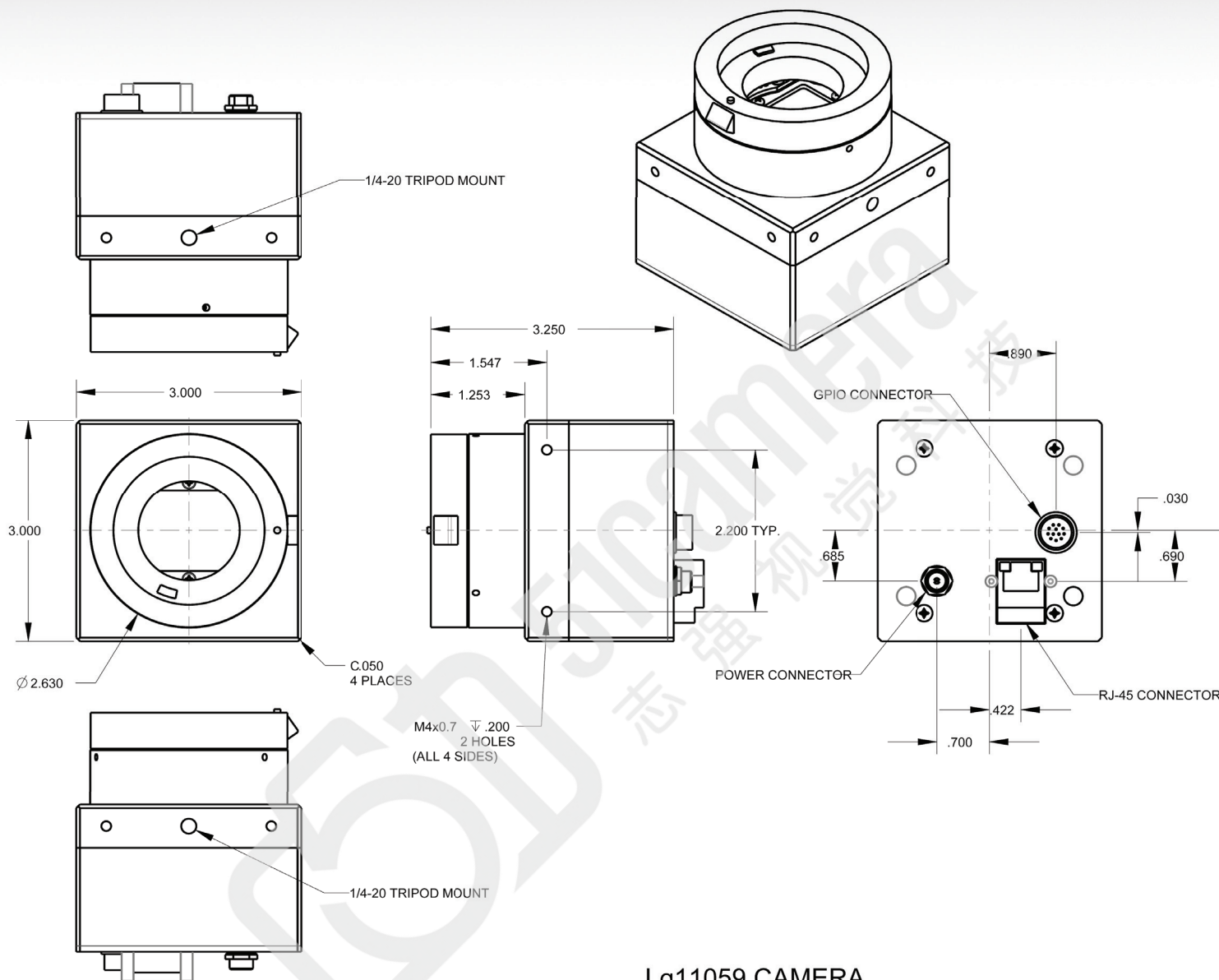
Recommended PC Specs	<ul style="list-style-type: none"> Pentium 4, 1.3 GHz or higher 512 Mb RAM 60 MB hard drive free space or more GigE Port Windows 10, 8.1, 7; Linux
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Compliance

GigE Vision Compliant	yes
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Mechanical Drawings



Lg11059 CAMERA



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