

2.2 Megapixel High-Speed CMOS Camera with SuperSpeed USB 3.0



High Resolution CMOS Sensor with Global Shutter

Lumenera's Lt225 enclosed digital camera is built for rugged 24/7 use. A proven high resolution 2/3" CMOS sensor with a fully electronic global shutter that captures excellent quality, high-speed images with zero blur. The industrial-grade version of this camera is ideally suited for applications that include traffic monitoring, Automatic License Plate Recognition (ALPR), high-speed inspection and motion control. This camera can be customized to suit OEM designs and is available in a scientific-grade.

High Quality Images at High Speed

The Lt225 was created for speed using latest USB 3.0 technology to ensure the fastest image delivery even at its largest resolution. Image captures can be synchronized using either a hardware or software trigger, and are complemented by 128 MB of onboard memory that is used for frame buffering to ensure full image delivery.

Plug-and-Play with No Framegrabber

The compact, light weight design of this camera, measuring 40 x 40 x 53 mm, ensures easy integration into tight spaces and enclosures. The fully locking USB 3.0 cabling and digital interface ensure a simple plug-and-play installation. No framegrabber is required. Simplified I/O cabling is provided through a locking Hirose connector supporting external power input along with 1 optically isolated output, 1 optically isolated input and 2 configurable I/O ports.

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 of our 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.

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

- Industry proven CMOSIS CMV2000 CMOS 2.2 megapixel sensor with electronic global shutter
- SuperSpeed USB 3.0 interface for fast image delivery and simplified connectivity
- · Compact, robust form factor measuring 40 x 40 x 53 mm with 16 mounting points
- 170 fps at full resolution
- Color or monochrome CMOS sensor with 2/3" optical format providing a resolution of 2048 x 1088 using 5.5 µm² pixels
- Locking industrial micro USB and Hirose GPI/O connector for power as well as control of peripherals and synchronization of lighting
- 4 GPI/O: 1 optically isolated output, 1 optically isolated input and 2 configurable I/O ports
- 128 MB RAM used for frame buffering
- Simplified cabling video, power and full camera control over a single micro USB 3.0 cable
- Region of Interest (ROI) options improve sensitivity and provide higher frame rates
- Select 8 or 12-bit pixel data
- FCC Class B. CE Certified
- DirectShow compatible
- · Software compatible with Windows XP, Windows Vista, Windows 7, 32 and 64-bit operating systems
- Complete SDK available
- Full one (1) year warranty



7 CAPELLA COURT, OTTAWA, ON, CANADA K2E 8A7 | TEL (613) 736-4077 | FAX (613) 736-4071 | WWW.LUMENERA.COM | INFO@LUMENERA.COM © 2012 Lumenera Corporation. All rights reserved. Design, features, and specifications are subject to change without notice 11022012

Color Quantum Efficiency Curve



Monochrome Quantum Efficiency Curve



NIR Quantum Efficiency Curve



Image SensorCMOSIS CMV2000, color, monochrome, NIROptical Format2/3"Active Area12.755 mmPixel Size5.5 x 5.5 µmResolution2048 x 1088 pixelsRegion of Interest ControlAny multiple of 8 x 8Camera SpecificationsFrame Rate170 fps at full resolutionBit Depth8 or 12-bitBinning ModesN/AExposure ControlManual and automatic controlGain ControlManual and automatic controlGain ControlManual and automatic controlGain Range1.0 to 1.6 xWhite BalanceManual and automatic controlTrigger ModesHardware and software triggerableCamera CharacteristicsSensitivityTBDDynamic Range60 dBFull Well Capacity13,500 e-Quantum Efficiency45% peak color, 64% peak monochromeRead Noise13 e-Data InterfaceUSB 3.0, micro locking connectorGeneral Purpose I/OLocking HiroseLens MountC-MountDimensions40 x 40 x 53 mmMass138 gOperating Temperature-50 to 0°CStorage Temperature-50 to 0°CStorage Temperature-50 to 0°COperating Humidity50 5% %, non-condensingShock / VibrationTBDCamera SoftwareDirectShowPower Consumption5 V DC @ 700 mA, ~3.25 WPower Consumption5 V DC @ 700 mA, ~3.25 WPower RequirementUSB bus power (optional 5 V DC	Sanaar Spacifications	
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Emissions Compliances FCC Class B, CE Certified Hazardous Materials RoHS, WEEE Compliant	Power Bequirement	
Hazardous Materials RoHS, WEEE Compliant		,1 0 ,
	Emissions Compliances	
Warranty One (1) year		, ,
	Warranty	One (1) year
Ordering Options		
Lt225M 2.2 MP Monochrome Camera (Enclosed)		
Lt225C 2.2 MP Color Camera (Enclosed)	Lt225C	2.2 MP Color Camera (Enclosed)
Lt225M-NIR 2.2 MP NIR Camera (Enclosed)	Lt225M-NIR	2.2 MP NIR Camera (Enclosed)
		DVD with user application software, camera device
drivers and documentation		drivers and documentation
LuSDK Software Developer's Kit (Web Download)	LuSDK	Software Developer's Kit (Web Download)
LuSDK-DVD Software Developer's Kit (DVD)		Software Developer's Kit (DVD)
Customization Options	Customization Options	
-SCI Scientific grade	-SCI	Scientific grade
-WOIR Plain glass within lens mount		Plain glass within lens mount
-WOG Without any glass within lens mount		
-WOCG Without any cover glass on the camera sensor	-WOCG	Without any cover glass on the camera sensor

