INFINITY 1-5
5.0 Megapixel CMOS USB 2.0 Camera

Scientific Digital Imaging for Documentation in Life Science, Clinical and Material Science Applications

INFINITY 1-5
For applications that demand extremely high resolution, the INFINITY 1-5 camera produces a full 2592 x 1944 video preview with speeds of 7 frames per second (fps) in both color and monochrome formats. This full 5.0 megapixel sensor allows users to view fine detail in samples and provide a high resolution preview to large monitors and overhead projectors.

Excellent Color Reproduction
Years of experience in the microscopy market have allowed Lumenera to develop specialized color algorithms ensuring excellent color reproduction in samples ranging from stained cells to water inspection.

Full Image Analysis Software Included
INFINITY CAPTURE, an intuitive image capture program, and INFINITY ANALYZE, a full image analysis package offering camera control, measurement, annotations, tiling and post capture enhancement, are both included. Camera and software combined to create a complete microscopy imaging solution for your application.

USB 2.0 Plug-and-Play Interface
Once the software has been installed, running one or more cameras on a single computer is as simple as plugging them into a high-speed USB 2.0 port.

Third-Party Software Integration
INFINITY cameras are integrated into a variety of third-party software packages through direct drivers or with TWAIN/DirectX support.

Mac Camera Software
A Mac camera driver, capture application and ImageJ plug-in are available for the INFINITY 1-5.

Superior Technical Assistance Center (TAC)
As a customer you gain access to the TAC group and knowledge base, that provide full support for cameras, software and microscopy applications.

Features
- Low noise progressive scan 1/2.5” 5.0 megapixel CMOS sensor
- Full color sub-windowing for rapid focus and scanning of samples
- 7 fps at full 2592 x 1944 resolution and 60 fps at 640 x 480 resolution
- High-speed USB 2.0 for ease of installation on any computer
- Selectable 8 or 12-bit pixel data modes
- Software compatible with Windows XP, Windows Vista, Windows 7, Mac OSX, 32 and 64-bit
- Includes TWAIN and DirectX/Direct Show support

Recommended Applications
- Brightfield
- Darkfield
- Live Cell Imaging
- Histology
- Pathology
- Cytology
- Defect Analysis
- Semiconductor Inspection
- Metrology

Warranty
- One (1) year parts and labor

Microscope Coupler
- Requires 0.5 x C-mount coupler
Sensor Specifications

Image Sensor: Micron MT9P031, CMOS, color or monochrome, progressive scan
Optical Format: 1/2.5'
Active Area: 5.7 x 4.28 mm
Pixel Size: 2.2 x 2.2 μm
Resolution: 2592 x 1944 pixels
Region of Interest Control: Any multiple of 8 x 8 pixels, 32 x 32 pixels minimum

Camera Specifications

Frame Rate: 7 fps
Bit Depth: 8 or 12-bit
Binning / Subsampling Modes: 2 x 2, 4 x 4
Exposure Control: Manual and automatic control
Exposure Range: 106 μs to 3 s (video), 106 μs to 3 s (snapshot)
Gain Control: Manual and automatic control
Gain Range: 1 to 3.88 x
White Balance: Manual and automatic control

Camera Characteristics

Sensitivity: Good
Dynamic Range: 49 dB
Full Well Capacity: 15,000 e-
Quantum Efficiency: 47 % (green-peak), 62 % (mono-peak)
Read Noise: 20 e- rms
Dark Current Noise: <8 e-/s at 22 °C

Mechanical Specifications

Data Interface: USB 2.0
Lens Mount: Adjustable C-mount standard
Dimensions: 57.15 x 97.79 x 39.62 mm (2.25 x 3.85 x 1.56 inch)
Mass: 330 g
Operating Temperature: 0 to 50 ºC
Storage Temperature: -30 to 70 ºC
Operating Humidity: 5 to 95 %, non-condensing
Shock / Vibration: 50 G shock, 5 G (2 to 200 Hz) vibration

Camera Software

Operating Systems: Windows XP, Vista, 7, Mac OSX, 32 and 64-bit

Power and Emissions

Power Consumption: ~2.5 W
Power Requirement: USB bus power only
Emissions Compliances: FCC Class B, CE Certified
Hazardous Materials: RoHS, WEEE Compliant
Warranty: One (1) year

System Requirements

Recommended PC Specs:
- Pentium 4, 1.3 GHz or higher
- 512 MB RAM
- 500 MB hard drive free space or more
- USB 2.0 Port
- Windows 7

Minimum PC Specs:
- 600 MHz Processor
- 256 MB of SDRAM
- 200 MB hard drive free space
- USB 2.0 Port
- Windows XP

Included In The Box

INFINITY 1-5
- 5 MP Digital Camera for USB 2.0

INFINITY ANALYZE
- Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)

LuSDKSW
- Software Developer’s Kit (Web Download)

LuSDKSW-DVD
- Software Developer’s Kit (DVD)

Ordering Information

INFINITY 1-9C
- 5.0 MP Color CMOS Microscopy Camera

INFINITY 1-9M
- 5.0 MP Monochrome CMOS Microscopy Camera