

# INFINITY 1-2

2.0 Megapixel CMOS USB 2.0 Camera

Scientific Digital Imaging for Documentation in  
Clinical and Material Science Applications



## INFINITY 1-2

Within the INFINITY 1 family of CMOS cameras, the INFINITY 1-2 is an excellent entry level multi-megapixel microscopy camera. This camera is ideal for applications with bright, consistent lighting and tight budget constraints. The INFINITY 1-2 delivers outstanding image quality for a wide variety of scientific applications including clinical, life science, materials science and educational professionals.

### 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 wafer 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 are 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. This camera is compatible with the USB 3.0 interface, supporting the existing USB 2.0 frame rates.

### 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 1-2. Please refer to the Lumenera webpage at [www.lumenera.com](http://www.lumenera.com) for up-to-date details.

### Superior Technical Assistance Center (TAC)

As a Lumenera customer you gain access to the TAC group and knowledge base, which provide full support for cameras, software and microscopy

applications.



## Features

- Progressive scan 1/2" 2.0 megapixel CMOS sensor
- Full color sub-windowing and subsampling for rapid focus and scanning of samples
- 8 or 10-bit pixel data modes
- Software compatible with Windows 10, 8, 7, Vista, Mac OS X 10.7, 32 and 64-bit operating systems
- Includes TWAIN and DirectX/ Direct Show support

## Recommended Applications

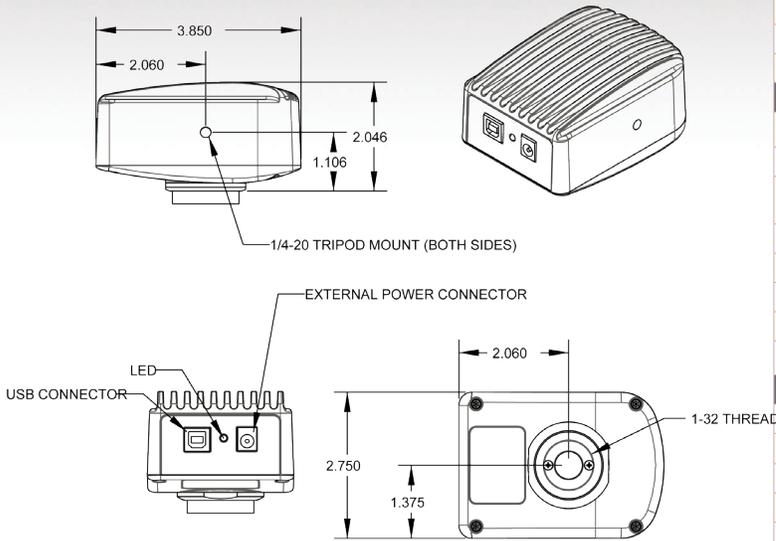
- Brightfield
- Live Cell Imaging
- Histology
- Pathology
- Cytology
- Defect Analysis
- Semiconductor Inspection
- Metrology

## Warranty

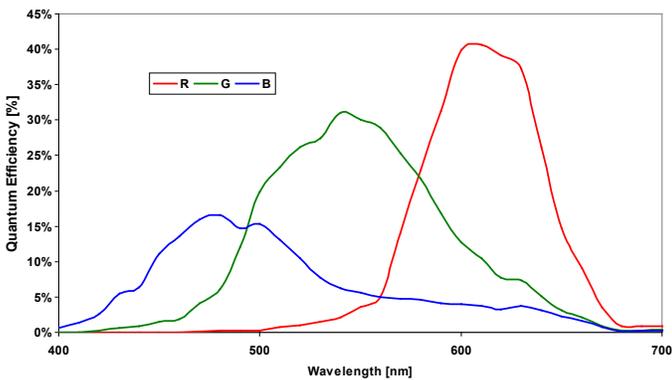
- Four (4) year warranty

## Microscope Coupler

- Requires 0.5x C-mount coupler



Quantum Efficiency Curves



Sensor Specifications	
Image Sensor	SOI268, CMOS, color, progressive scan
Optical Format	1/2"
Imager Size	Diagonal 7.92 mm
Pixel Size	4.2 μm x 4.2 μm
Resolution	1600 x 1200 pixels
Region of Interest Control	Any multiple of 8 x 8 pixels, 32 x 32 pixels minimum
Camera Specifications	
Frame Rate	15 fps
Bit Depth	8 or 10-bits
Binning / Subsampling Modes	2x subsampling mode
Exposure Control	Manual and automatic control
Exposure Range	64 μs - 499 ms (video), 64 μs - 2 s (snapshot)
Gain Control	Manual and automatic control
Gain Range	1 - 7.75x
White Balance	Manual and automatic control
Camera Characteristics	
Sensitivity	2.2 DN/(nJ/cm <sup>2</sup> ) [at 8-bit, 1x gains]
Dynamic Range	49 dB
Pixel Well Depth	12,600 e-
Quantum Efficiency	40% (red - peak)
Read Noise	45 e-
Dark Current Noise	<8 e-/s at 22° C
Mechanical Specifications	
Data Interface	USB 2.0
Lens Mount	Adjustable C-Mount standard
Dimensions	97.8 x 69.8 x 50.8 mm 3.85 x 2.75 x 2.00 inch
Mass	300 grams
Operating Temperature	0° C - 50° C
Storage Temperature	-30° C - 70° C
Operating Humidity	5%-95%, non-condensing
Shock / Vibration	50 G shock, 5 G (2-200 Hz) vibration
Onboard Memory	Camera has onboard non-volatile memory storage
Camera Software	
Operating Systems	Windows 10, 8, 7, Vista, Mac OS X 10.7, 32 and 64-bit
Power and Emissions	
Power Consumption	~2.5 Watts
Power Requirement	USB bus power (optional 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"> <li>• Pentium 4, 1.3 GHz or higher</li> <li>• 512 MB RAM</li> <li>• 500 MB hard drive free space or more</li> <li>• USB 2.0 Port</li> <li>• Windows 10, 8, 7, Vista, Mac OS X 10.7, 32 and 64-bit</li> </ul>
Included In The Box	
INFINITY 1-2CB	2 MP digital camera + 3m USB 2.0 Cable
LuINFSW-DVD	DVD with INFINITY user application software (including INFINITY ANALYZE), TWAIN driver and documentation
Ordering Information	
INFINITY 1-2CB	2 MP CMOS Color Camera
Ordering Options	
INFINITY ANALYZE MODULE	INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)
LuSDKSW	Software Developer's Kit (Web Download)
La050300	5 V DC, 2.5 A, 12.5 W Power Supply (Optional)

