

# INFINITY1-1M

1.3 Megapixel CMOS USB 2.0 Camera

Low Cost, High-Speed, CMOS Monochrome Microscopy Camera



#### **INFINITY 1-1M**

Teledyne Lumenera's INFINITY 1-1M digital camera is a cost-effective, versatile solution for clinical, life science, materials science and educational professionals. With 1280x1024 resolution and 30 fps frame rate, the INFINITY 1-1M delivers outstanding image quality and fast preview for a wide variety of applications. The low noise characteristic of the INFINITY 1-1 progressive scan 1.3 megapixel image sensor results in crisp quality for the most demanding microscopy applications including life science and material science applications.

## **Full Image Analysis Software Included**

INFINITY CAPTURE, an intuitive image capture program, and INFINITY ANALYZE, a full image analysis software 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 support.

## **Mac Camera Software**

A Mac camera driver, capture application and ImageJ plug-in are available for the INFINITY 1-1M. Refer to the Teledyne Lumenera website, www.teledynelumenera.com for up-to-date details.

# **Superior Technical Assistance Center (TAC)**

All Teledyne Lumenera cameras are supported by an experienced team of technical support and imaging experts widely acclaimed in the industry. As a Teledyne Lumenera customer you gain access to the TAC group and knowledge base, providing full support for cameras, software and microscopy applications.

#### **Features**

- 30 fps at full 1280x1024 resolution and 120 fps at 640x480 resolution
- Select 8 & 10-bit pixel data modes
- Compact design equipped with a C-Mount, facilitating installation on all microscope configurations including upright, inverted and stereo
- 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**

- Life Science
- Material Sciences
- Inspection
- Geology

# Warranty

• Four (4) year warranty

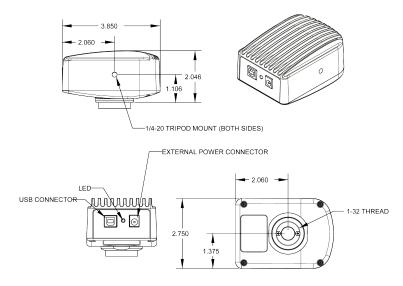
## **Microscope Coupler**

 Recommend 0.5x C-Mount coupler

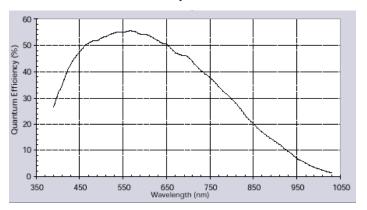




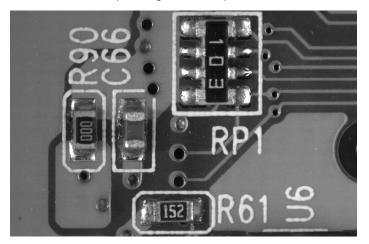
# Mechanical Drawings



# Monochrome Quantum Efficiency Curve



INFINITY 1-1M Sample Image - PCB Inspection



Sensor Specifications	
Image Sensor	1/2" CMOS Aptina MT9M001 (Mono)
Optical Format	1/2"
Imager Size	Diagonal 8.46 mm
Pixel Size	5.2 x 5.2 μm
Resolution	1280 x 1024 pixels
Region of Interest Control	User selectable
Camera Specifications	
Frame Rate	30 fps (1280 x 1024), 120 fps (640 x 480)
Bit Depth	8 or 10-bit
Exposure Control	Manual and automatic control
Gain	Manual control
Gain Range	1.0 to 15x
Camera Characteristics	
Dynamic Range	>54dB
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 g
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 (2-200 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 W
Power Requirement	USB bus power, or external 6VDC - 500mA
Emissions Compliances	FCC Class B, CE Certified
Hazardous Materials	RoHS, WEEE Compliant
Warranty	Four (4) year
Included In The Box	
INFINITY 1-1M	1.3 MP digital camera and 3m USB 2.0 cable

Ordering Information	
INFINITY 1-1M	1.3 MP CMOS Monochrome Camera
LuSDKSW	Software Developer's Kit (Web Download)
La20606 Power supply	6VDC, Power Supply (Optional)

