

INFINITY 1-1M

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

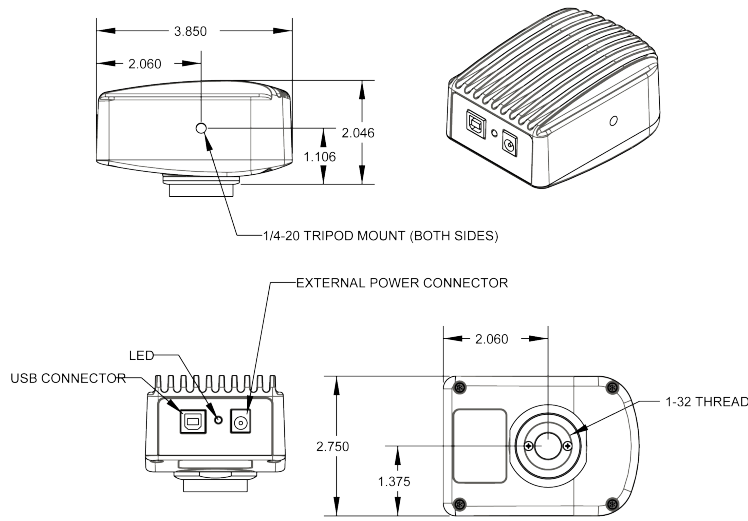
Warranty

- Three (3) year warranty

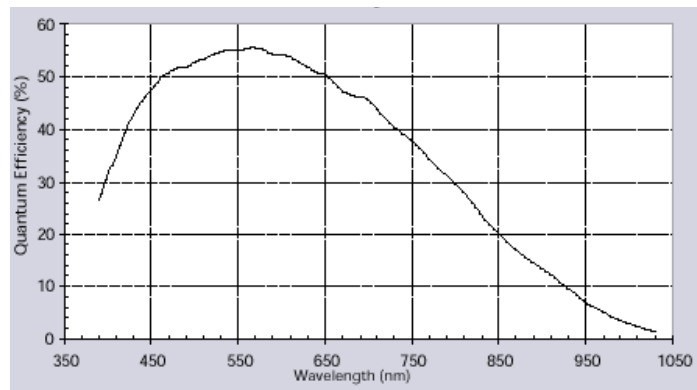
Microscope Coupler

- Recommend 0.5x C-Mount coupler

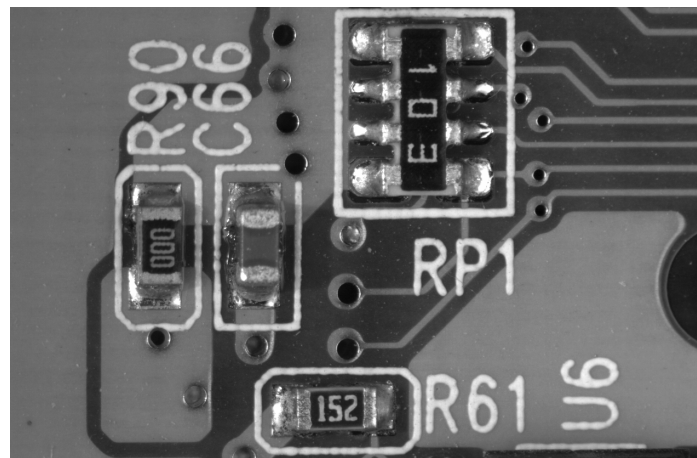
Mechanical Drawings



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 | Three (3) 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) |