

INFINITY 1-3

3.1 Megapixel CMOS USB 2.0 Camera

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



INFINITY 1-3

The INFINITY 1-3 scientific CMOS camera provides extremely fine detail that was previously invisible to lower megapixel imaging systems with 2048x1536 resolution. Benefit from fast, smooth previews during sample manipulation with high frame rates of up to 80 frames per second.

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 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.

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 1-3. Refer to the Lumenera website at 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

- Low noise progressive scan 1/2" 3.1 megapixel CMOS sensor
- Full color sub-windowing allows for rapid focus and scanning of samples; up to 80 fps at 640x480 resolution
- 8 or 10-bit pixel data modes
- Software compatible with Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit operating systems
- Includes TWAIN and DirectX/ Direct Show support

Recommended Applications

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

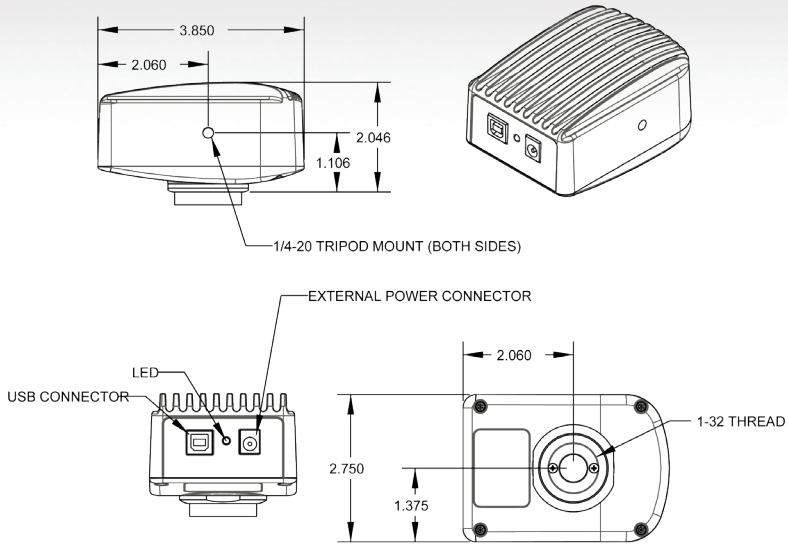
Warranty

- Four (4) year warranty

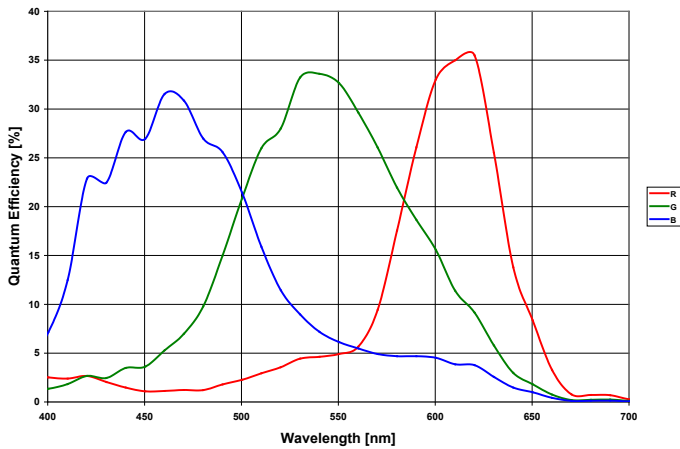
Microscope Coupler

- Requires 0.5x c-mount coupler





Quantum Efficiency Curves



| Sensor Specifications | |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Image Sensor | Micron MT9T001, CMOS, color, progressive scan |
| Optical Format | 1/2" |
| Active Area | 6.5mm x 4.9mm |
| Pixel Size | 3.2µm x 3.2µm |
| Resolution | 2048 x 1536 |
| Region of Interest Control | Any multiple of 8 x 8 pixels, 32 x 32 pixels minimum |
| Camera Specifications | |
| Frame Rate | 12 fps |
| Bit Depth | 8 or 10-bits |
| Binning / Subsampling Modes | 2x subsampling mode |
| Exposure Control | Manual and automatic control |
| Exposure Range | 128µs - 500ms (video), 128µs - 4s (snapshot) |
| Gain Control | Manual and automatic control |
| Gain Range | 1-3.88x |
| White Balance | Manual and automatic control |
| Camera Characteristics | |
| Sensitivity | 0.92DN/(nJ/cm ²) (at 8-bit data, 1x gains) |
| Dynamic Range | 63dB |
| Pixel Well Depth | 20,000 e- |
| Quantum Efficiency | 36 % (red-peak) |
| Read Noise | 18 e- |
| Dark Current Noise | <8 e-/s |
| Mechanical Specifications | |
| Data Interface | USB 2.0 |
| Lens Mount | Adjustable C-Mount standard |
| Dimensions | 2.75 x 3.85 x 2.25 inches |
| 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 |
| Camera Software | |
| Operating Systems | Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit |
| Power and Emissions | |
| Power Consumption | ~2.5 Watts |
| Power Requirement | USB bus power (optional 6VDC - 500mA) |
| 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"> • Pentium 4, 1.3 GHz or higher • 512 MB RAM • 500 MB hard drive free space or more • USB 2.0 Port • Windows 8, 7, XP, Mac OS X 10.7 |
| Included In The Box | |
| INFINITY 1-3C | 3.1 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 1-3C | 3.1 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) |
| La20606 | 6VDC, 2A, 12W Power Supply (Optional) |

