

# INFINITY2-2

2.0 Megapixel CCD USB 2.0 Camera

High Resolution CCD Color or Monochrome  
Microscopy Camera for Qualitative Image Archiving



## INFINITY2-2

The INFINITY2-2 is one of Lumenera's most popular scientific camera, offering the perfect balance of resolution, color reproduction, sensitivity and high-speed preview. The multi-purpose INFINITY2-2 provides laboratories with the ability to perform a variety of applications, replacing the need for multiple camera systems. Whether you are performing brightfield or fluorescence microscopy, this is the perfect solution for your technique.

### Superior Sensitivity and Color Reproduction

Years of experience in the microscopy market have allowed Lumenera to develop specialized algorithms ensuring superior color reproduction. Additionally, INFINITY software allows the adjustment of all live preview color facets, enabling users to apply their own personal preferences to each image. For lower light applications the Sony CCD sensor has an extremely high dynamic range, resulting in excellent camera sensitivity.

### 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

Sharing and installation of one or more cameras on a single computer is quick and simple through a high-speed USB 2.0 interface. 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 and ImageJ plug-in are available for the INFINITY2-2. Please refer to the Lumenera webpage [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

- Low noise progressive scan 1/1.8" 2.0 megapixel Sony ICX274 CCD sensor
- Full color sub-windowing allows for rapid focus and scanning of samples; up to 30 fps at 640x480 resolution
- 8 or 12-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
- Darkfield
- Live Cell Imaging
- Histology
- Pathology
- Cytology
- Defect Analysis
- Semiconductor Inspection
- Metrology
- Gel Documentation
- Moderate Light Fluorescence
- Quantitative Analysis

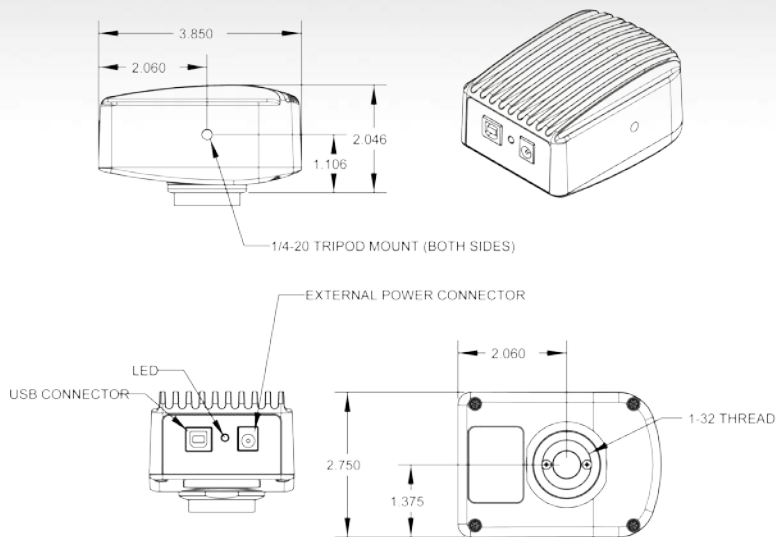
## Warranty

- Four (4) year warranty

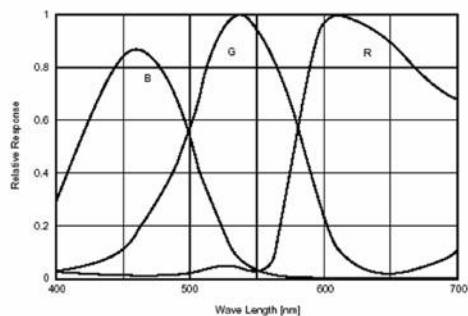
## Microscope Coupler

- Requires 0.5x c-mount coupler

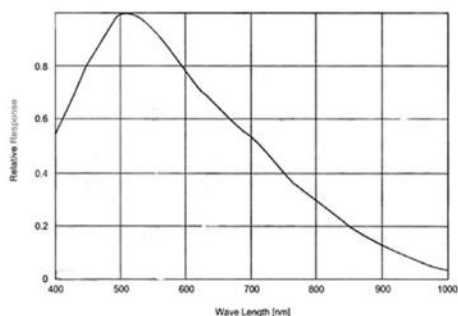




Color Quantum Efficiency Curves



Monochrome Quantum Efficiency Curve



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| Sensor Specifications      |   |
|----------------------------|---|
| Image Sensor               | Sony ICX274 2.0 Megapixel CCD, color or monochrome, progressive scan  |
| Optical Format             | 1/1.8"  |
| Imager Size                | Diagonal 8.93mm   |
| Pixel Size                 | 4.4 x 4.4 $\mu$ m   |
| Resolution                 | 1616 x 1216 pixels  |
| Region of Interest Control | Any multiple of 8 x 8 pixels  |
| Camera Specifications      |   |
| Frame Rate                 | 12 fps (1616 x 1216)  |
| Bit Depth                  | 8 or 12 bit   |
| Binning                    | 2 x 2, 4 x 4  |
| Exposure Control           | Manual and automatic control  |
| Exposure Range             | 118 $\mu$ s to 1.17 s (video), 50 $\mu$ s - 10 s (snapshot)   |
| Gain Control               | Manual and automatic control  |
| Gain Range                 | 1 to 10 x   |
| White Balance              | Manual and automatic control  |
| Camera Characteristics     |   |
| Dynamic Range              | 57 dB   |
| Pixel Well Depth           | 7,373 e-  |
| Quantum Efficiency         | 59% (@ 575nm, mono)   |
| Read Noise                 | 12 e-   |
| Dark Current Noise         | < 1 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<br>3.85 x 2.75 x 2.00 inch  |
| Mass                       | 300g  |
| Operating Temperature      | 0 to 50 °C  |
| Storage temperature        | -30 to 70 °C  |
| Operating Humidity         | 5 to 95 %, non-condensing   |
| 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 (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 or more</li> <li>60 MB hard drive free space or more</li> <li>USB 2.0 or USB 3.0 Port</li> <li>Windows 10, 8, 7, Vista, Mac OS X 10.7, 32 and 64-bit</li> </ul> |
| Included In The Box        |   |
| INFINITY2-2                | 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       |   |
| INFINITY2-2C               | 2 MP CCD Color Camera   |
| INFINITY2-2M               | 2 MP CCD Monochrome Camera  |
| Ordering Options           |   |
| LuAFM                      | INFINITY ANALYZE Advanced Features Module (Multi-Focus Composition and Spherical Aberration Correction Features)  |
| LuSDKSW                    | Software Developer's Kit (Web Download)   |
| La050315                   | 5 V DC, 3.0 A, 15 W Power Supply  |