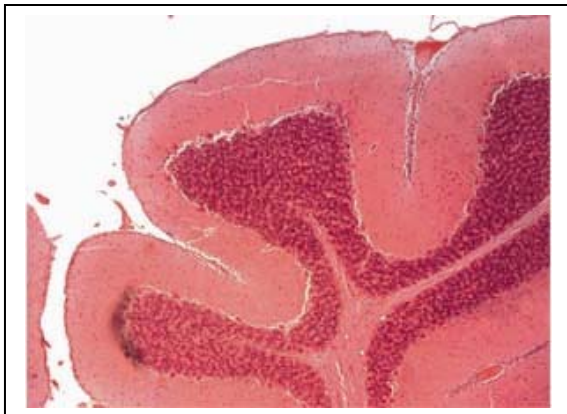# Lumenera corporation

INFINITY1-2

2.0 Megapixel CMOS USB 2.0 Camera

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

Outline

Performance Features

Lumenera's INFINITY*1-2* CMOS digital camera is designed to be a cost-effective, versatile solution for clinical, life science, materials science and educational professionals. With 1600x1200 resolution and on-board processing, the INFINITY*1-2* delivers outstanding image quality for a wide variety of scientific applications.

Live video preview provides for real-time focus, while auto exposure and auto white balance efficiently capture your optimal image. An intuitive user application provides camera controls, while full integration to popular third-party imaging applications is available through our TWAIN drivers.

The USB 2.0 digital interface ensures a simple plug and play installation – and one standard cable minimizes camera clutter. No framegrabber required.

 INFINITY cameras are supported by an experienced team of technical support and imaging experts. We understand your imaging needs and are here to help you get the most out of your camera.

❑ **High-speed USB 2.0 interface eliminates a framegrabber and facilitates ease of installation on both laptop and desktop computers**

❑ **Low noise characteristic of progressive scan 2.0 megapixel image sensor results in crisp color quality for the most demanding brightfield and darkfield microscopy applications including clinical pathology and cytology, life science and geology**

❑ **Full color sub-windowing allows for rapid, focus and scanning of samples: 20 fps at full 1600x1200 resolution and 96 fps at 640x480 resolution**

❑ **Includes INFINITY ANALYZE software for advanced camera control, image processing, measuring and annotation included, as well as INFINITY CAPTURE software for camera control and image capture.**

❑ **Select 8 & 10-bit pixel data modes**

❑ **RGB data captured through each pixel contains 30-bits of color image information resulting in 1024 intensity values**

❑ **Camera control through an intuitive user TWAIN interface results in rapid image capture archiving and documentation for high throughput applications, demanding research environments and teaching facilities**

❑ **GPI/O for control of peripherals and synchronization**

❑ **The INFINITY*1-2* has a compact design equipped with a C-Mount, facilitating installation on all microscope configurations including upright, inverted and stereo**

❑ **INFINITY*1-2* cameras are software compatible with Windows 2K, Windows XP, Windows Vista 32 and 64-bit operating systems**
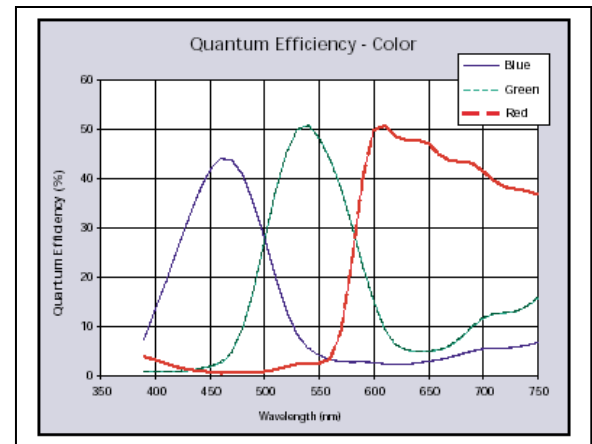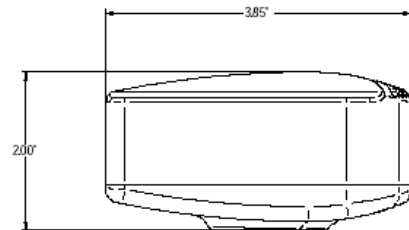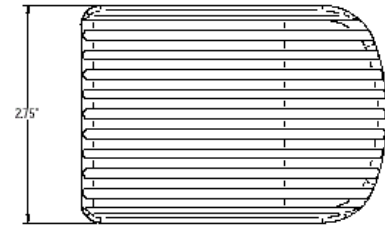
Camera Sensor

Image Sensor	**1/2" CMOS format, color or monochrome, 6.7mmx5.0mm array**
Effective Pixels	**1600x1200, 4.2µm square pixels**
Frame Rate	**20 fps at 1600x1200, 96 fps at 640x480**
Dynamic Range	**>60dB**
Digital Output	**8 and 10-bit uncompressed**
Read Noise	**20 e- rms**

Camera Controls

Mass	**300g**
Power Requirement	**USB bus power, or external 5VDC - 500mA**
Power Consumption	**~2.5Watts**
Operating Temperature	**0° C to +50° C**
Operating Humidity	**5%-95%, Non-condensing**
Integration Time	**84µs – 3s**
Shutter	**Rolling shutter with single frame capture**
ROI	**User Selectable**
Auto Exposure	**Automatic / Manual**
White Balance	**Automatic / Manual**
Gain	**1 to 10X Programmable**
Interface Connector	**USB 2.0 high-speed interface**
Dimensions (L x W x H)	**3.85 x 2.00 x 2.75 inches**
Lens Mount	**C-Mount lens adapter (CS-Mount option)**

Recommended PC Specs:
- Pentium 4, 1.3 GHz or higher
- 512 Mb RAM
- 60 GB hard drive free space or more
- USB 2.0 Port
- Windows 2000 or XP

Minimum PC Specs:
- 600 MHz Processor
- 256 MB of SDRAM
- 20 GB hard drive free space
- USB 2.0 Port
- Windows 2K, XP, Vista 32 and 64-bit OS

Product Includes:
- INFINITY*1-2* digital camera for USB 2.0
- CD-ROM with INFINITY user application software
- TWAIN driver
- Documentation
- USB 2.0 cable

Quantum Efficiency - Color

Ordering Information

INFINITY*1-2*C – 2 Megapixel Color Camera

LuSDK – Software Developer's Kit

Full customization available to meet your exact needs!

Lumenera Corporation • 7 Capella Court, Ottawa, ON, Canada K2E 8A7 • (t) 1.613.736.4077 • (f) 1.613.736.4071 • www.lumenera.com