INFINITY *X-32*

32 Megapixel CCD USB 2.0 Camera

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

INFINITY *X-32*

The INFINITYX family of cameras are pixel shifting, high resolution imaging solutions which allow for the examination of minute detail in samples. Lumenera's INFINITY*X-32* digital CCD camera is based on the Sony ICX274 2.0 megapixel sensor which offers 2, 8, 18 and 32 megapixel modes. This camera is well suited for all applications ranging from Brightfield documentation to Life Science research.

Superior Sensitivity and Color Reproduction

Years of experience in the microscopy market have allowed Lumenera to develop specialized color algorithms ensuring near-perfect color reproduction. Additionally, the software included with all INFINITY cameras allows the adjustment of all facets of the live preview. This allows users to apply their 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 Driver and Plug-In

A Mac driver and ImageJ plug-in are available for the INFINITY*X-32*. Please refer to the Lumenera webpage www.lumenera.com for up-to-date details.

Superior Technical Assistance Center (TAC))

As a Lumenera partner 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 2.0 megapixel Sony ICX274 CCD sensor
- Full color sub-windowing allows for rapid focus and scanning of samples; up to 25 fps at 640x480 resolution
- 8 or 12-bit pixel data modes
- Software compatible with Windows 10, 8, 7, Vista, 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
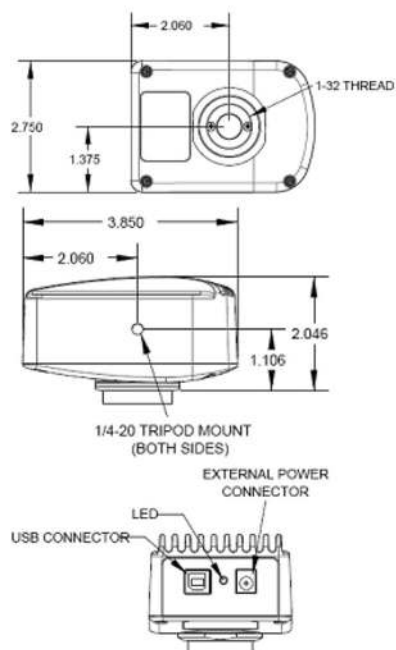- Gel Documentation
- Quantitative Analysis

Warranty

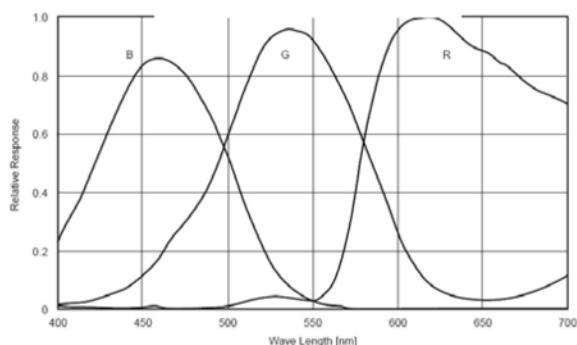- Four (4) year warranty

Microscope Coupler
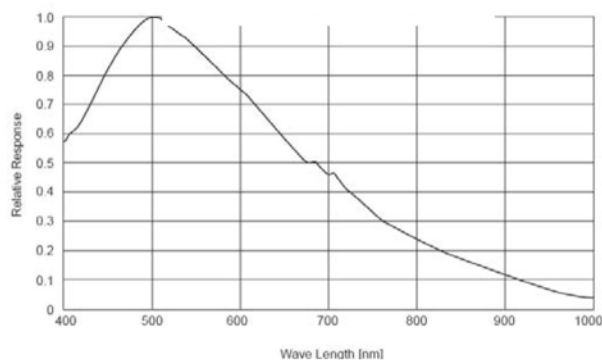
- Requires c-mount coupler

Mechanical Drawing

Color Quantum Efficiency Curves

Monochrome Quantum Efficiency Curve

Sensor Specifications	
Image Sensor	Sony ICX274 2.0 megapixel, CCD, color or monochrome progressive scan
Optical Format	1/1.8"
Imager Size	Diagonal 8.92 mm
Pixel Size	4.4 x 4.4 mm
Resolution	1616 x 1216
Camera Specifications	
Frame Rate	12 fps at 1616 x 1216
Bit Depth	8 or 12 bit
Binning / Subsampling Modes	2 x 2, 4 x 4
Exposure Control	Manual and automatic control
Exposure Range	50 µs to 2 seconds
Gain Control	Manual and automatic control
Gain Range	1 to 10x
White Balance	Manual and automatic control
Camera Characteristics	
Dynamic Range	56 dB
Pixel Well Depth	7, 373 e-
Quantum Efficiency	59% (mono), 43% (color)
Read Noise	12 e-
Dark Current Noise	<1 e-/s at 21ºC
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 ºC
Storage Temperature	-30 to 70 ºC
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, 32 and 64-bit
Power and Emissions	
Power Consumption	~2.5 W
Power Requirement	External 5 V DC, 3 A
Emissions Compliances	FCC Class BE, CE Certified
Hazardous Materials	RoHS, WEEE Compliant
Warranty	Four (4) year
System Requirements	
Recommended PC Specs:	• Pentium 4, 1.3 GHz or higher • 512 MB RAM • 60 MB hard drive free space or more • USB 2.0 Port • Windows 10, 8, 7, Vista, 32 and 64-bit
Included In The Box	
INFINITYX-32	32 MP digital camera + 3m USB 2.0 cable
LuINFSW-DVD	DVD with INIFINITY user application software (including INFINITY ANALYZE), Twain driver and documention
Ordering Information	
INFINITYX-32C	32 Megapixel Pixel Shifting CCD Microscopy Camera
INFINITYX-32M	32 Megapixel Pixel Shifting Monochrome CCD Microscopy Camera
Ordering options	
LuSDKSW	Software Developer's Kit (Web Download)