

INFINITY-EP

1.3 Megapixel CMOS USB Camera

High-Speed, Digital Microscopy Camera Designed for Electrophysiology



INFINITY-EP

Teledyne Lumenera's INFINITY-EP digital camera is a cost-effective solution with excellent near IR sensitivity and responsiveness. This camera produces crisp, incredibly low noise images and videos are delivered at high frame rates with zero lag. Teledyne Lumenera's Advanced Thermal Management Technology (ATMT) eliminates dark current noise, providing high-contrast imaging to meet the challenging conditions of electrophysiology applications like thick brain slice observation.

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.

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 resolution of 1280x1024, 60 fps at 640x480
- Select 8 & 12-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, 8.1, 7, 32 and 64-bit operating systems
- Includes TWAIN and DirectX/ Direct Show support

Recommended Applications

- Electrophysiology
- IR-DIC
- Phase-Contrast and Darkfield Microscopy

Warranty

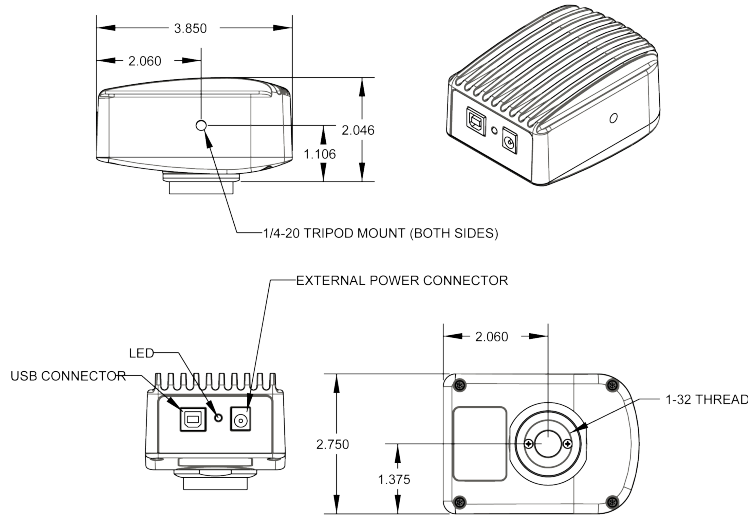
- Four (4) year warranty

Microscope Coupler

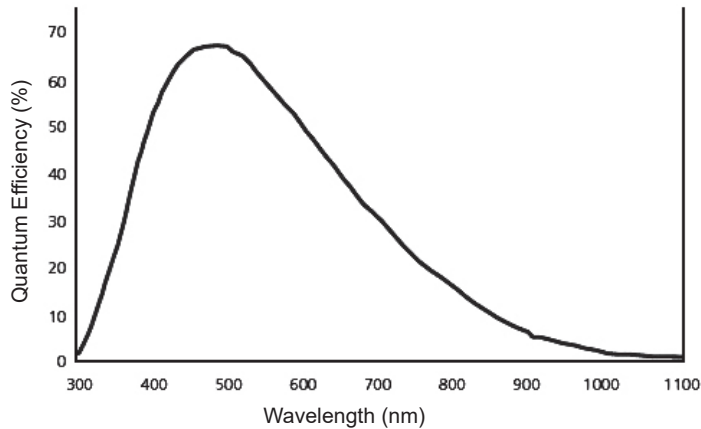
- Recommend 0.35x C-Mount coupler



Mechanical Drawings



Monochrome Quantum Efficiency Curve



Sensor Specifications	
Image Sensor	CMOS Sensor, mono, progressive scan
Optical Format	1/3"
Imager Size	Diagonal 6.08 mm
Pixel Size	3.63 x 3.63 μm
Resolution	1280 x 1024 pixels
Region of Interest Control	User selectable
Camera Specifications	
Frame Rate	30 fps (1280 x 1024), 60 fps (640 x 480)
Bit Depth	8 or 12-bit
Exposure Control	Manual and automatic control
Gain Range	1 to 15.9
Exposure Range	3 μs to 1966 ms
Camera Characteristics	
Dynamic Range	71 dB
Sensitivity (8-bits)	2.8 DN/(nJ/cm ²)
Full Well Capacity	~17,000
Quantum Efficiency	68% @466nm
Dark Current	< 1.0 e-/s/pixel
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, 8.1, 7, 32 and 64-bit
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, 8.1, 7
Power and Emissions	
Power Consumption	~2.5 W
Power Requirement	USB bus power, or external 5VDC - 500mA
Emissions Compliances	FCC Class B, CE Certified
Hazardous Materials	RoHS, WEEE Compliant
Warranty	Four (4) year
Included In The Box	
INFINITY-EP	1.3 MP Mono Camera and 3m USB 2.0 cable
Ordering Information	
INFINITY-EP	1.3 MP CMOS Monochrome Camera
LuSDKSW	Software Developer's Kit (Web Download)
La050315 Power supply	5V DC, Power Supply (Optional)