

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

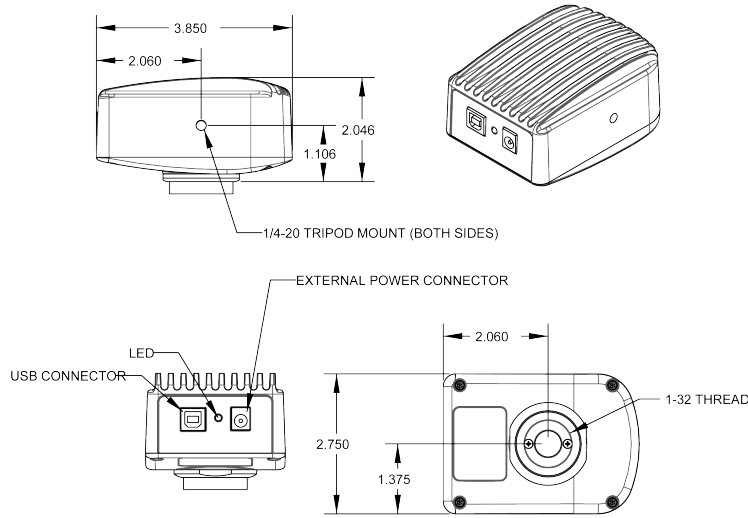
- Four (4) year warranty

Microscope Coupler

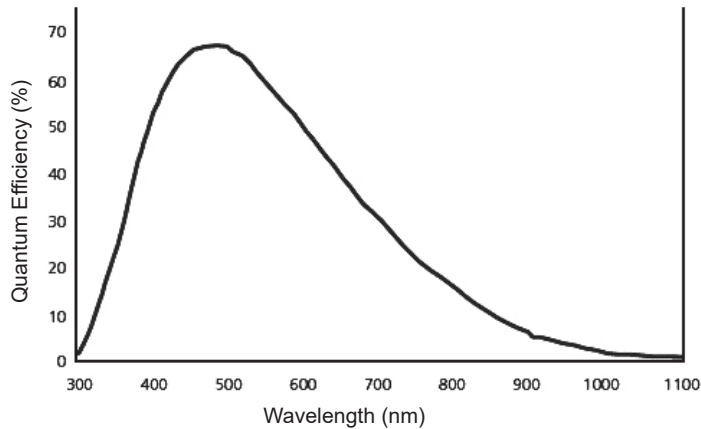
- Recommend 0.35x C-Mount coupler



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) |