INFINITY*5*-3

3.2 Megapixel Global Shutter CMOS Microscope Camera

High performance microscope camera for a wide range of applications – with dual output to HDMI and USB 3

INFINITY*5*-*3*

Teledyne Lumenera's INFINITY*5*-3 is a high quality 3 megapixel microscopy camera that provides high speeds at high resolution. The INFINITY*5*-3 is based on the Sony® Pregius™ global shutter CMOS sensor that rivals sCMOS technology. With fast focusing at high frame rates of up to 120 frames per second, the INFINITY*5*-3 performs in a wide range of applications.

The INFINITY*5*-3's 1/1.8 inch sensor format accommodates a 2064 x 1544 resolution with 3.45 micron pixels. The HDMI output allows the INFINITY*5*-3 to connect to both a computer and HDMI TV or monitor for applications where knowledge sharing is critical.

Simultaneous Live Viewing on Computer and HDMI Monitor

Operate the camera by directly connecting to an HDMI monitor, or connect the camera to a PC or Mac via USB 3 for image preview and capture. Use the soft-touch response buttons to control the camera with or without connection to a computer.

Ready to Perform

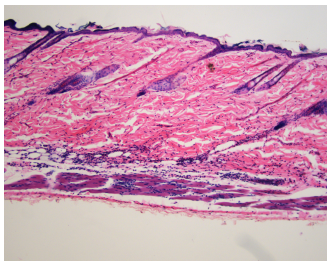
The INFINITY*5*-3 comes ready to perform with cables (USB and HDMI), power supply, and INFINITY CAPTURE software for routine imaging needs, including camera setting adjustments, live preview, image capture, and video clips. The INFINITY*5*-3 also provides third-party interoperability with MetaMorph and Micro-Manager microscopy software, MatLab systems engineering software, LabView analysis software, and TWAIN and DirectShow interfaces.

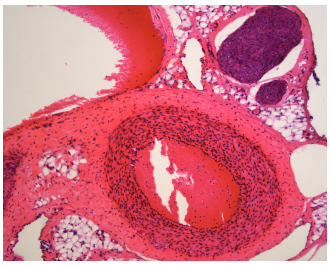
Accurate Color

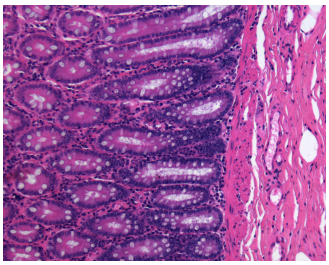
Teledyne Lumenera's specialized algorithms ensure accurate color reproduction that results in a sample preview on a monitor that matches the view in the microscope eyepiece.

Guaranteed Quality

Teledyne Lumenera provides a full three-year year warranty on all microscopy cameras.







Features

- Sony Pregius global shutter sensor technology
- Color or monochrome IMX252 Global Shutter CMOS sensor with 1/1.8" optical format providing a resolution of 2064 x 1544 using 3.45 x 3.45µm pixels
- Fast frame rates at ~120 fps at full resolution in 8-bit
- Dual output to USB 3 and HDMI compatible monitor
- Intuitive on-camera buttons for power, white balance and image capture
- Selectable 8 or 12-bit pixel data
- High-speed USB 3.1 Gen 1 interface for fastest image delivery and simplified connectivity. USB 2.0 supported.
- Software compatible with Windows 10, Windows 8.1, Windows 7, MAC OS X 10.13, 32 and 64-bit operating systems
- Support for third-party capture and analysis applications: MetaMorph and Micro-Manager
- Recommended coupler: 0.5x or 0.63x

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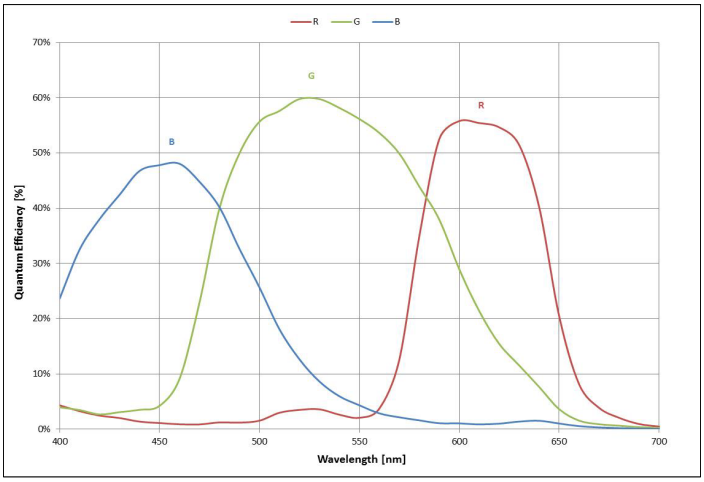
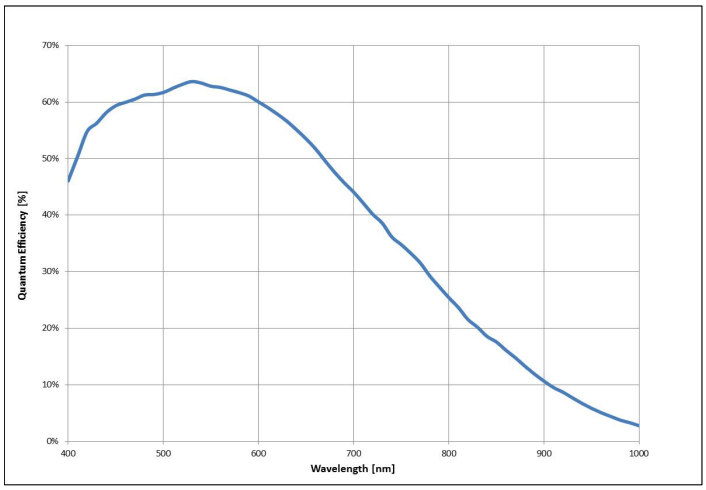
Color Quantum Efficiency Curves



Monochrome Quantum Efficiency Curve



Ordering Information	
INFINITY*5*-3C	3.2 MP CMOS Color USB 3.1 Gen 1 Camera
INFINITY*5*-3M	3.2 MP CMOS Mono USB 3.1 Gen 1 Camera
5YR Protection Plan - 2	5-Year Extended Warranty with Advanced Replacement
La050315	Transformer, 5VDC, 15W, 3A, International
La2000PAFL	GPIO cable with leads
La2030HD	3m HDMI Cable
INFINITY-HD-WT	IOGEAR Wireless Transmitter and Receiver kit

Sensor Specifications	
Image Sensor	SONY IMX252 CMOS color or monochrome
Optical Format	1 / 1.8”
Imager Size	Diagonal 8.9 mm
Pixel Size	3.45 x 3.45 µm
Resolution	2064 x 1544 pixels
Region of Interest Control	Yes
Camera Specifications	
Max Frame Rate	1080P60 (~120 fps at full resolution) in 8-bit
Bit Depth	8 or 12-bit
Binning Modes	2 x 2 for mono
Exposure Control	Manual and automatic control
Exposure Range	38µs to 59.5m (snapshot); 14µs to 11.9s (video)
Gain Control	Manual and automatic control
Gain Range	~1 to 16 x
White Balance	Manual and automatic control
Trigger Modes	Hardware and software triggerable
Camera Characteristics	
Sensitivity (8-bit)	Mono: 4.8 DN/(nJ/cm2), Color: 4.4 DN/(nJ/cm2) (Global and channel gains at unity)
Dynamic Range	~73 dB
Full Well Depth	~10,775 e-
Quantum Efficiency	60% @ 530 nm (color), 63% @ 530 nm (mono)
Read Noise	~2.35 e-
Dark Current	1.0 e-/s (at 22 °C ambient, 35 °C internal camera)
Mechanical Specifications	
Data Interface	USB 3 connector, HDMI output
General Purpose I/O	Locking Hirose MXR-8R-8SA(71)
Lens Mount	Adjustable C-Mount
Dimensions	3.85 x 2.75 X 2.00 inch
Mass	330 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 (2-200Hz) Vibration
Camera Software	
Operating Systems	Windows 10, Windows 8.1, Windows 7, MAC OS X 10.13, 32 and 64-bit operating systems
Third Party Software Interfaces	MicroManager, MetaMorph, MatLab, LabView, DirectShow, TWAIN
Power and Emissions	
Power Consumption	~4W
Power Requirement	External 5 V DC, 1.2 A, power supply (included)
Emissions Compliances	FCC and CE Certified
Hazardous Materials	RoHS, WEEE Compliant
Warranty	Three (3) years
Included In The Box	
INFINITY*5-3*	3.2 MP digital camera with 3m USB 3 cable
La050315	Transformer, 5VDC, 15W, 3A, International
La2030HD	3m HDMI Cable

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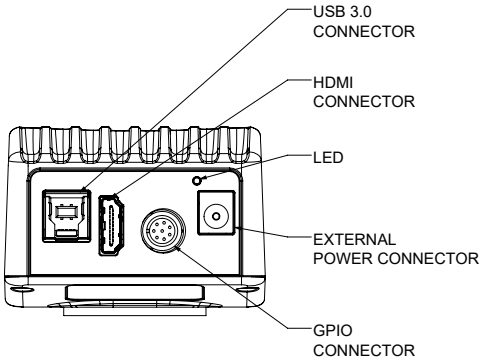
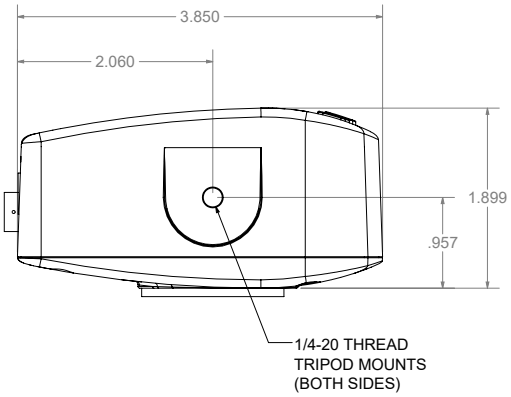
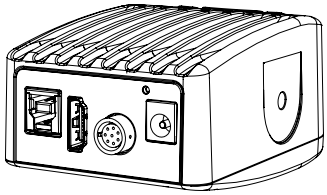
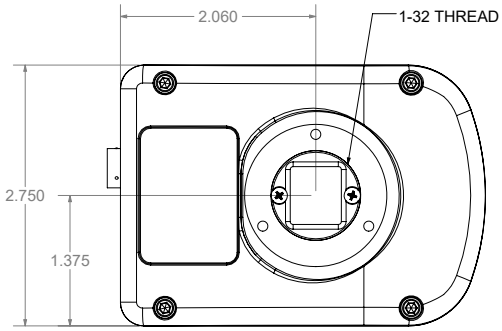
Mechanical Drawing









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